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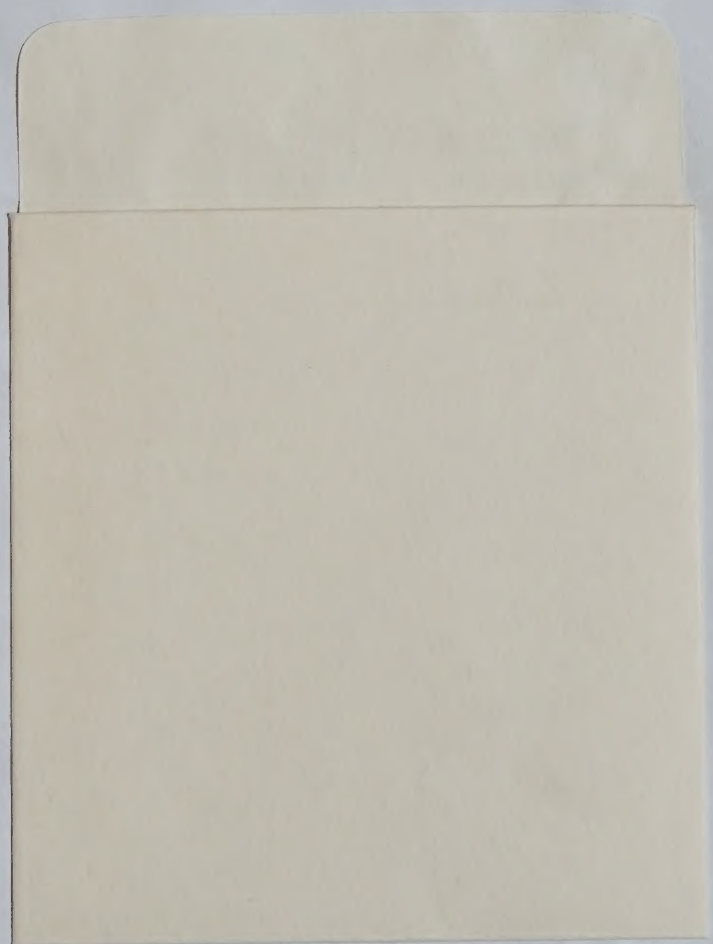

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INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

CALHOUN COUNTY STUDY

FIELD REPORT NO. 101

ECONOMIC ACTIVITIES FOR CALHOUN COUNTY, MICHIGAN

By

David G. Greene,
Economist

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

Errata Sheet

Calhoun County Study
Field Report No. 101

Page	Line	Correction
3	10	change 54.1 million to 64.1 million
9	30	change ture to true
10		change "Johntown" to Johnstown and "Benford" to Bedford
14		vertical axis should be labeled "percent of Labor Force"
19	5	second column heading should read '% Non-Ag. Residents"
20	11	change Table 4 to Table 5
35	7	should read -- Area III, instead of Area 11
38	11	change "Value of Tax vs. Product sold" to Value of Farm Products sold
44	4	from line 4 to end of page should <u>not</u> be in form of a quote
48		chart 7 is in error
61	21	change "censuses' to census
61	25	change "manufacturers" to manufactures
65	33	reference is to Table 22
73	16	omit words "charts on index"
74	14	change "sommunity" to community
86	17	change "reapir" to repair
88		"Local Sales Per Establishment" should read--Total Sales Per Establishment ($ 000)
88		bottom line of figures should read 2.9, 2.9, 1.9, 3.9 and 1.3
95	7	change "problems" to programs

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ECONOMIC ACTIVITIES FOR CALHOUN COUNTY, MICHIGAN

March 1961

Prepared by

David G. Greene, Economist
Institute for Community Development and Services
Continuing Education Service
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ECONOMIC ACTIVITIES FOR
CALHOUN COUNTY, MICHIGAN

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I. ECONOMIC CYCLES AND TRENDS

The problem of unemployment in Calhoun County is actually only one part of a broader problem. To understand the causes of unemployment in Calhoun County we must first look at the larger problems of national unemployment and unemployment in Michigan. Only then is it possible to put the local problem in its proper perspective. For after all, Calhoun County is only one small segment of the state and national economy, and its fortunes are intimately related to and dependent upon national and statewide economic conditions.

The national employment problem has two important facets: first, is the cyclical influences--those related to fluctuations in the business cycles, and second, the structural influences--those relating to changes in the organization of markets and of production.

Cyclical Fluctuations

Four economic contractions or recessions, have occurred since 1947. The first, which began in 1948 and lasted 11 months was accompanied by a rise in unemployment in the U.S. from a level of 3.6 per cent to a peak of 7.8 per cent in October, 1949. Unemployment declined steadily until the spring of 1951 and remained at a low level until the end of the Korean War. The second recession began in mid-1953 and reached a peak in September of 1954. From the recession of 1954 we moved into a boom (1955-1957) which, except for a few months was not excessive. By 1958 we were in another recession, short but very sharp, which was followed by a very hesitant recovery in 1959 and yet another recession in 1960.

The question of the cause of these economic contractions is beyond the scope of this report. What we are interested in is the effect of these cycles on employment. All three recessions have caused sharp increases in unemployment, extending to all

working groups, classified by age, sex, color, family status, industry, occupation, experience or locality. Furthermore, unemployment has led downturns, and lagged the upturns, of recessions. As a result of these recessions the level of unemployment in peace time prosperity since 1947 has been about 4 per cent of the labor force. Only during the Korean War and the peace time balance of 1953 was prosperity unemployment notably less.

As far as cyclical fluctuations are concerned, whatever happens in the national economy happens in Michigan, only to a greater degree. This is because Michigan's economy is highly concentrated in the manufacturing industries. During all post-war recessions unemployment rates in manufacturing were among the highest. Manufacturing is the most important economic activity in Michigan. In 1959 manufacturing accounted for 41.9 per cent of the state's non-farm employment, and generated 45.5 per cent of the state's personal income. Only six states surpassed Michigan in the first measurement, and by the latter criterion manufacturing is more important to Michigan than to any other state in the nation. It is to the state's credit that manufacturing has reached such a high stage of development, but it is disturbing that it lacks the balance of other industrialized states. From a cyclical standpoint, Michigan's unemployment problems in the post-war period have been similar to national problems, but because of the industrial distribution of the state they have been more serious. The relatively high unemployment rates in Michigan should not, therefore, cause us to think of them as purely a state problem; they are intimately related to national problems.

Structural Trends

The unemployment situation in Michigan and the United States in the post-war period has been the result of structural changes as well as cyclical fluctuations. On the national level, two main structural changes are underway. First, technological changes

are displacing labor in some major sectors of the economy. Second, regional rates of industrial growth have shifted markedly since World War II.

Automation. Some indication of the degree of structural unemployment can be inferred from the fact that between 1953 and 1959 the number of persons employed in manufacturing declined by 1,100,000, mining employment fell by 170,000, and the drop in transportation-communication-public utilities was 314,000--a drop in these industries of 1.6 million jobs. At the same time total employment rose from 62.3 million to 54.1 million. Employment in the service industries has been growing rapidly, and the percentage of total employment in the service industries was 54 per cent in 1953 and 58 per cent in 1959, in contrast to a gradual but persistent, rise in unemployment in goods industries.

In the automobile industry, for example, employment has been declining during the past decade. In the peak production year 1955, when 6.1 million passenger cars were turned out, employment averaged 904,000. Two years later, in 1957, when approximately the same number of cars were made, employment had fallen to 786,000, a decline of almost 13 per cent. This change in employment levels is a reflection of improved productivity, part of which has been the result of increased use of automated production equipment.

Decentralization. This decline in automobile employment has been particularly marked in Detroit. In 1950 Detroit automobile employment accounted for over 40 per cent of total for the country. By 1955, when production had reached its all-time peak, Detroit accounted for only 35 per cent of the country's total. By May of 1959 it had fallen to 28 per cent. Here, also, a rise in productive efficiency has played a part, but in the main, the decline is attributable to the continuing decentralization of automobile production.

The example of automobile production gives us a clue into the nature of the second structural trend. Regional rates of industrial growth have shifted markedly since World War II. While the middle Atlantic and East North Central region of the country

accounted for almost three-fifths of manufacturing employment gains in 1899 through 1947, the two regions shared only one-fifth of the gains recorded in 1949 through 1954 and only one-third of net employment expansion in 1954 through 1956. Regional levels of industrialization (percentage of population employed in manufacturing) have been equalizing.

As far as population growth is concerned, the most rapidly growing regions are on the periphery of the United States. These include the Far West, Southeast and, Southwest. Those regions adjacent to the Great Lakes have grown at a rate below the national average. In short, markets in other regions of the country have grown to the extent that location of manufacturing establishments in these regions has become economical. This can be easily demonstrated by example, using automobile production as the case. It has been estimated that the optimum output of an assembly plant is 100,000 units and the optimum output of a stamping plant is 1,000,000 units. This would suggest that if decentralization did take place, assembly plants would be decentralized first (as is actually the case).

For a 4,000 pound car the cost of shipping assembled to Los Angeles is about $360.00. The cost of shipping parts to the West Coast is only $150.00, plus about another $120.00 for shipment of the assembled car from Los Angeles to the final destination. Total transportation costs would then be $270.00, or a saving of $90.00 per car. If 2,000,000 automobiles were produced for sale outside Michigan, and if we assumed an average savings of $45.00 per car by assembly at points closer to ultimate distribution (or one-half the Los Angeles saving) the potential savings to the automobile companies would be 90 million dollars (a larger amount than the total business activity tax and corporate franchise tax from all firms). If the market is of sufficient size then the nature of transportation costs tend to make decentralization economical.

What is true in automobile production is also true, at least to some extent, of many other manufacturing industries. Instead of renovating obsolete plants, or expanding plants in the same

location, manufacturers are finding it more economical to locate near the rapidly growing population centers in the Southeast and West. This trend is not confined to Michigan or the automobile industry. However, the technology of automobile production and the nature of the product have resulted in an epitomization of this trend in this industry in Michigan.

Defense Procurement. We have now discussed two of the major structural changes taking place in the American economy. The relevance of these changes to the problems of Michigan is obvious, and has been amply demonstrated in the examples. Unfortunately, two other important changes are taking place which peculiarly and particularly affect Michigan. The first is the shift of military procurement and defense production to aircraft, missiles, and ships. In 1953 these three accounted for only 50 per cent of defense spending for armaments. However, by 1959. These accounted for 84 per cent. Unfortunately, these industries are not of major importance in Michigan.

Demand for Automobiles. The second change has been in the pattern of demand for automobiles. The diffusion to so high a proportion of the total population of the automobile makes it unlikely that growth can depend as much on it as in the past. Assuming a ratio of one car for every three persons, as at present, and new car demand coming entirely from replacement and new family formation, on the basis of expected demographic trends this would yield a basic demand of about 4.3 million units per year. On this basis, it is difficult to see how past high levels of automobile production can be sustained in the future.

Before we try to put Calhoun County into the economic setting we have drawn, let us recapitulate our findings as to national trends and their effect on the Michigan economy. First, we discussed briefly the cyclical fluctuations in the American economy in the post-World War II period. We have seen how cyclical contractions have resulted in heavy unemployment three times since the Korean War. Furthermore, because of the heavy reliance of the Michigan economy

on manufacturing in general, and more particularly on durable goods, the impact of these recessions on employment in Michigan has been even greater.

Second, we have shown the impact upon Michigan's economy of two major structural trends in the American economy: the decline in manufacturing employment largely due to automation: and the decentralization of industry because of differential patterns in the growth of markets.

Third, we have discussed two other changes which have had, and will continue to have, important effects on the Michigan economy: the changing pattern of defense expenditures, and the changing pattern (or volume), of the demand for automobiles.

Taxes And Labor And Plant Location

Before continuing on, some discussion of two prominently mentioned factors of Michigan's economic climate should be undertaken. These two factors are, of course, labor unions and taxes.

There are more misconceptions about labor, productivity, unions and wages as a factor in attracting or repelling industry than about any other aspect of the problem. Michigan's labor force is actually one of its great advantages. The state has been widely industrialized for decades. The efficiency of its leading factories is not exceeded anywhere in the world, and its wage rates are high. Michigan offers one of the largest pools of skilled labor available in the country. However, a survey of manufacturing executives found that pressure from organized labor was considered a disadvantage for Michigan. It is a mistake, however, to believe that employers are leaving Michigan merely to escape union pressures and high wages. A survey of 88 new plants in the South after World War II found that only 25 per cent were oriented toward Southern labor, while 75 per cent were oriented toward access to markets and materials. Moreover, the plants oriented towards low wage labor were mostly small plants. Without exception, plants oriented towards markets or materials were little concerned about unions. Most managers believed that their company had accepted the principle of collective bargaining and the unionization of the

South was merely a matter of time. (Glenn E. McLaughlin and Stefan Roback, Why Industry Moves South, National Planning Association, Kingsport, Tennessee, 1949).

Production workers in Michigan have the highest average weekly earnings in the nation. High earnings may be expected in Michigan because of the predominance of high value-added industries and because of a relatively large percentage of skilled and semi-skilled workers. Outside of Detroit, Cleveland and Louisville areas, average wages in out-state Michigan, Ohio and Kentucky differed very little. The difference between North and South wage rates will entice manufacturers south only in the case of industries with a low level of mechanization which can also dispense with close synchronization of production or suppliers.

As far as unreasonableness of union wage demands on firms is concerned, any international union considers a firm's size, position in the industry, nature of the industry and local's membership in determining the extent of deviation that it will allow from the pattern of wages. The unions will not, however, allow the workers of one plant to compete with the workers in other plants by reducing wages.

The subject of the effect of taxes on plant location decisions has been hotly discussed and strenuously argued. However, according to Dr. Harvey Brazer, in The Michigan Economy, state and local taxes do not appear, for most manufacturing firms, to represent a major element of cost. According to a Pennsylvania tax study committee, in 1953 the average state tax on a manufacturer in North East Central States amounted to two-thirds of one per cent of net investment. (Commonwealth of Pennsylvania Tax Study Committee, The Tax Problem, Harrisburg, Pennsylvania, 1953). If annual labor and material costs equal 66 per cent of net investment then cutting state taxes in half would amount to no more than a one-half per cent decline in labor and material costs. Michigan State taxes on business in 1956 equaled only one-half per cent of total costs. However, local taxes were 1.8 times as large as State taxes.

Tax receipts per capita in 1957 equaled $181 for Michigan. This put Michigan in twelfth place among the states; all the Pacific states and Connecticut, Massachusetts, and New York were higher. Furthermore, two supposedly "low" tax states, Illinois and New Jersey were $179 and $174 per capita. Industry doesn't necessarily want low taxes if low taxes mean that it will get little or nothing in governmental services. And, a state in which industrial growth is bringing with it rising income and urbanization is likely to be one in which tax collections per person are rising. Movement of new industry into an area is bound to raise taxes.

An attitude survey carried out by the Survey Research Center of the Institute for Social Research at the University of Michigan concluded that "In general, high wages as well as taxes, seem much less important in actual migration of industry than they are as pervasive irritations." Much of the furor about taxes is that state and local taxes are highly visible and they are regarded as being subject to control. As Dr. Brazer shrewdly pointed out, "No amount of rhetoric or argument is likely to influence other costs, but taxes are the product of legislative decision and are subject to being influenced by pressure groups, including business."

Now that the background has been filled in and the air has been cleared of several misconceptions, we can begin to fit the economic conditions of Calhoun County into the broader perspective. It is now possible to investigate the effects of broad national and regional economic trends on the economy of Calhoun County and to investigate how and why local conditions vary from regional and national conditions.

II. ECONOMIC STRUCTURE AND ECONOMIC CONDITIONS

The industrial structure of a community determines the sensitivity of the economy to national business fluctuations and to structural trends. Thus, the second step in the analysis of economic conditions in Calhoun County must be an investigation of the industrial structure of the area.

Definition Of The Area

When we attempt to study the economy of any politically defined area, there is always the chance that political and economic boundaries may not coincide. The political boundaries of a county are no more than lines drawn on a map and economic activity crosses these lines. Therefore, data on the economic activity in a county may not fully reflect the magnitude of the economic area. This is especially true in Calhoun County, where the major economic center, Battle Creek, is located in the extreme Northwest corner of the county. Many people work in Calhoun County and live in Barry and Kalamazoo counties; many people work in Battle Creek City, and live in Bedford, Pennfield, Battle Creek or Emmet Township. In fact, population growth of the townships surrounding Battle Creek City in Calhoun, Barry, and Kalamazoo counties indicate that their growth is strongly influenced by the economic growth of Battle Creek.

Different pictures of economy can be drawn depending upon how data is collected. Data concerning the residents of an area will yield an entirely different picture from that concerning location of jobs. For instance, census of population data is based on residence. This data (1950) indicates that about 44 per cent of manufacturing employees reside within Battle Creek. The 1954 Census of Manufactures data is collected by place of employment. This data indicates that about 60 per cent of manufacturing employees work within Battle Creek. The implication is that many more manufacturing employees work inside (See Table 1) the city limits of Battle Creek than reside within the city limits of Battle Creek. The same is ture of

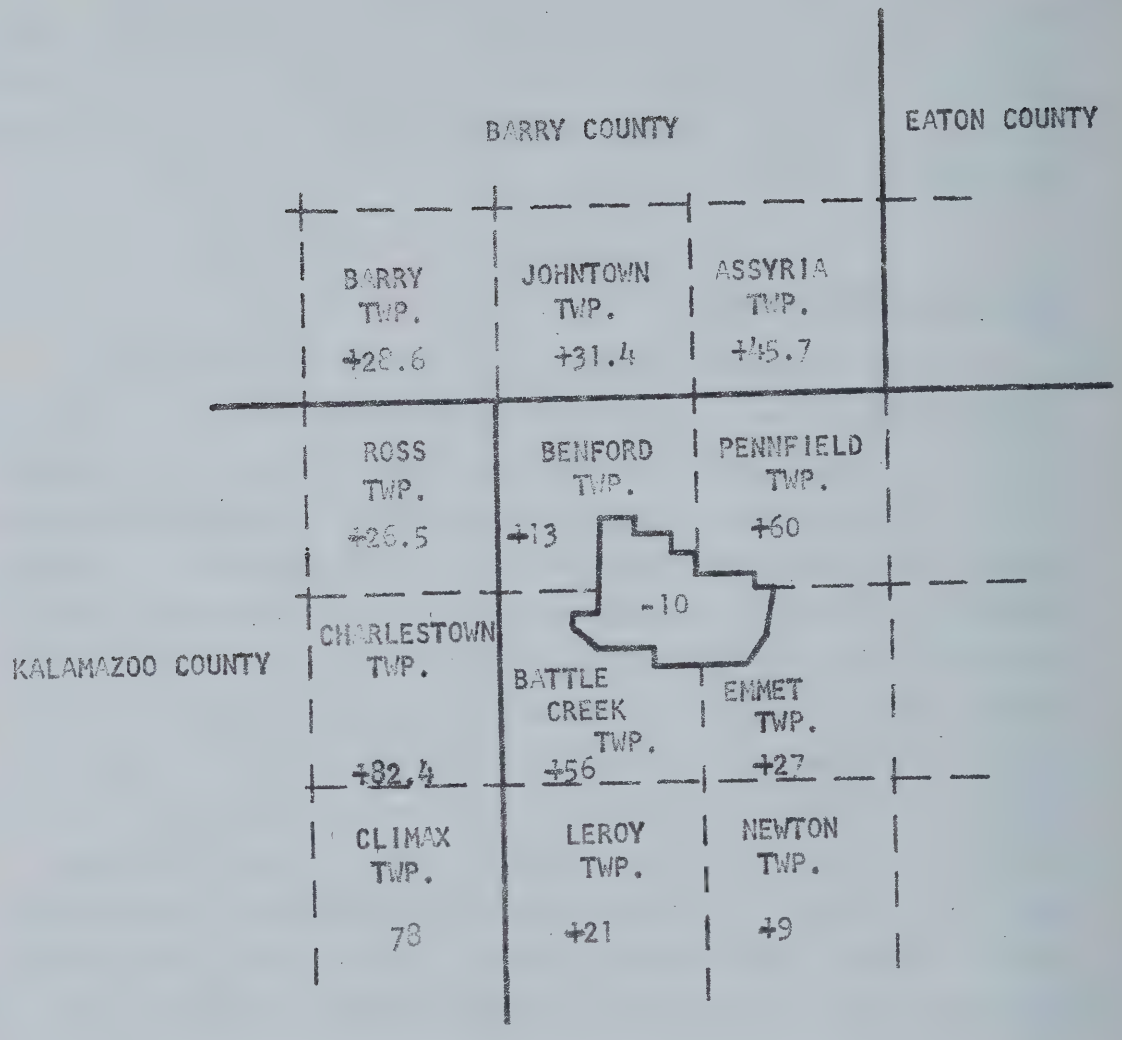


CHART 1

POPULATION GROWTH OF TOWNSHIPS SURROUNDING
BATTLE CREEK 1950-1960

Source: Census of Population, 1950 & 1960

Table 1 Manufacturing

Employment in Calhoun County

Comparing 1950 Census of Population

and 1954 Census of Manufactures

Manufacturing Employment	1950 Census of Population	1954 Census of Manufactures
County	17495	21102
Battle Creek	7748	12471
Albion	1555	2472
Remainder	8192	6159
Per Cent of Employment		
County	100.0	100.0
Battle Creek	44.3	59.1
Albion	8.9	11.7
Remainder	46.8	29.8

Source: Census of Population, 1950; Census of Manufactures, 1954

industries other than manufacturing. Furthermore, more workers are employed in Calhoun County than live in Calhoun County. This is becoming more common with increasing suburbanization of both employees and business establishments and represents a severe limitation on the usefulness of economic data. However, keeping in mind the inherent limitations of the data, we can discuss the economic structure of Calhoun County.

Structure Of Calhoun County's Economy

The industrial structure of any area is generally divided into nine categories. There are three that produce goods: manufacturing, construction, and agriculture. There are six that produce services: transportation, communications, and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; services; and government.

Battle Creek area, which includes all of Calhoun County, has a smaller proportion of its labor force engaged in agriculture than does the nation as a whole. In 1959 total agricultural employment in the county was about 2.1 per cent of population compared to about 3.4 per cent for the United States. The agricultural economy of Calhoun County will be discussed in a separate section of this report; for the time being we will omit further references to this sector.

By use of Chart 2, we can compare the proportions of non-agricultural employment in each industry group for Calhoun County, Michigan, and the United States. This breakdown is for the year 1959. Calhoun County has a larger proportion of its labor force in manufacturing than does either Michigan or the United States. Furthermore, the county has a smaller proportion of its labor force in construction, utilities, wholesale trade, and retail trade than either Michigan or the United States. In the finance, insurance, and real estate and service categories there is a slightly greater percentage employment in Calhoun County than the

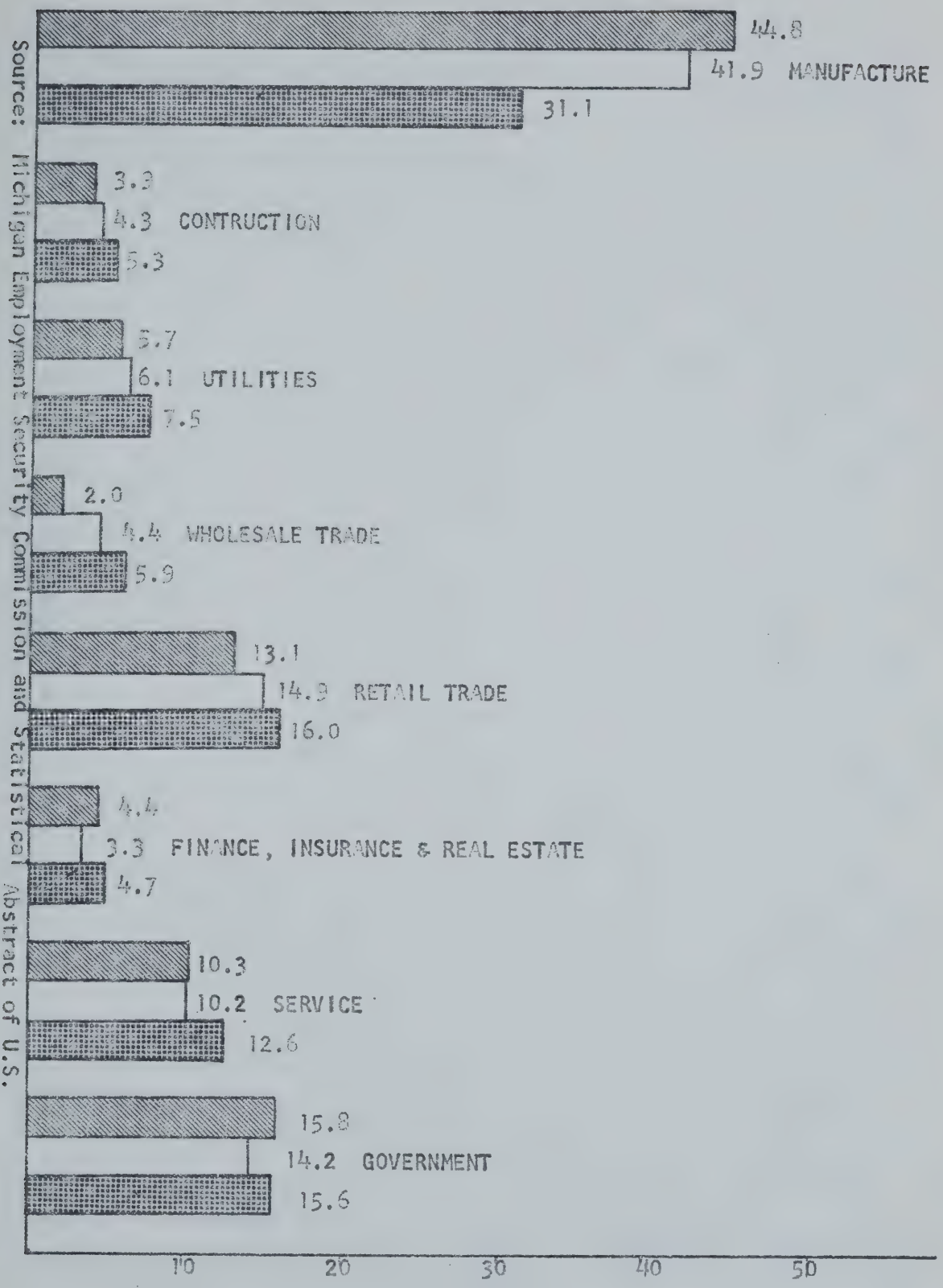
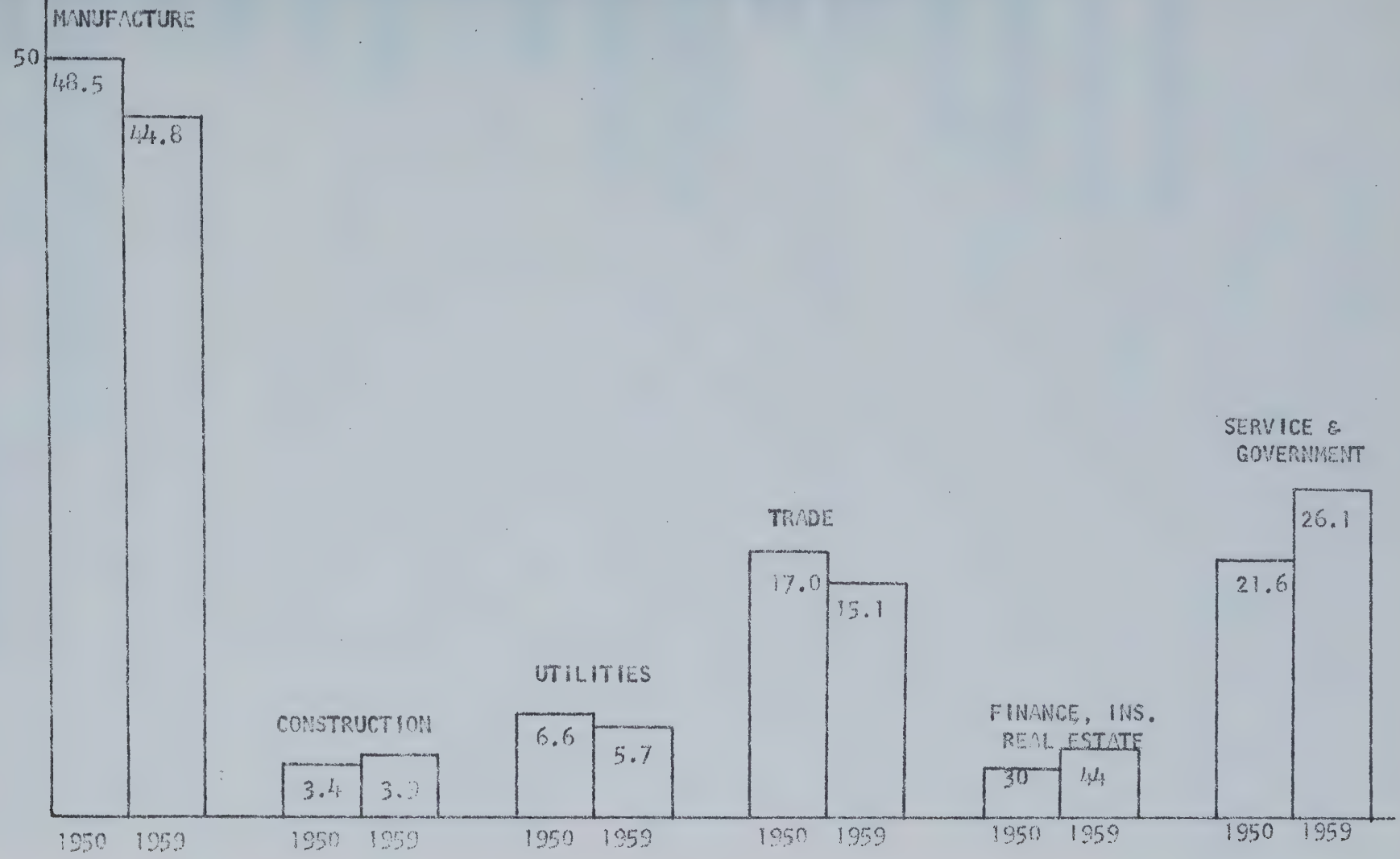


CHART 2

PER CENT OF NONAGRICULTURAL EMPLOYMENT BY INDUSTRY GROUP,
CALHOUN COUNTY, MICHIGAN, AND U.S., 1959

CHART 3

INDUSTRY DISTRIBUTION OF EMPLOYMENT
CALHOUN COUNTY 1950 & 1959



Source: Michigan Employment Security Commission

State, but a somewhat smaller percentage than the national figure. The only other category beside manufacturing where there is a greater proportion of employment in Calhoun County than Michigan or the United States is the government.

Comparing 1959 with 1950 (Chart 3) we find a significant decline in the proportion of the labor force engaged in manufacturing. This decline in manufacturing has not been as great as the decline for the State of Michigan (Table 2). In 1950, Michigan had proportionately more manufacturing employees than Calhoun County. In 1959 Calhoun County had more proportionately manufacturing employees than Michigan. Both Calhoun County and Michigan follow the national trends in the decline of manufacturing employment. Calhoun County also followed the national and state trends with increasing proportions of its labor force in construction; finance, insurance and real estate; and service and government. The county experienced a decline in employment in transportation, communications, and utilities, again following the national pattern. The only category in which there was a deviation from the national and state trends was in the relative decline in employment in wholesale and retail trade. The largest relative gain was in the services and government category with 26.1 per cent of nonfarm employment in 1959 compared to 21.6 per cent in 1950. There are, relative to size, one-third more manufacturing employees in Calhoun County than in the United States and about half the proportion of employees in wholesale trade. Calhoun County shows greater specialization in manufacturing than Michigan or the United States, and less in nonmanufacturing categories (39.4 per cent of labor force compared with 43.9 per cent for the state and 53.3 per cent for the United States). The only service industry in which the county has a greater proportion than either the state or the United States is government. This is because of a greater percentage of Federal employees in the county (5.7 per cent of nonfarm employment) than in the state (1.9 per cent) or nation (4.2 per cent). (Table 3)

Table 2

Comparison of Percentage
Employment by Industry Classification
Calhoun County, Michigan and
United States
1950 and 1959

1950	Calhoun		Michigan		United States	
	1950	1959	1950	1959	1950	1959
Manufacture	48.5	44.8	49.4	41.9	33.5	31.1
Construction	3.4	3.9	4.1	4.3	5.2	5.3
Utilities	6.6	5.7	6.4	6.1	8.9	7.5
Trade	17.0	15.1	18.3	19.3	20.5	21.9
Finance, Insurance and Real Estate	3.0	4.4	2.5	3.3	4.1	4.7
Service & Government	21.6	26.1	18.5	24.4	24.8	28.2
Non-farm Employment	100.0	100.0	100.0	100.0	100.0	100.0

Source: Michigan Employment Security Commission and Statistical Abstract of The United States, 1960.

jc

Table 3

Percentage Distribution of Nonfarm

Employment, Calhoun County, Michigan

and United States, 1959

	Battle Creek	State	United States
Total Non-Farm Employment (Wage and Salary)	100.0	100.0	100.0
Manufacturing	44.8	41.9	31.1
Durable Goods	24.9	33.3	17.9
Lumber	0.2	0.5	1.3
Primary Metals	2.6	3.6	2.2
Fabricated Metals	5.0	4.5	2.1
Machinery	11.6	6.0	3.1
Electrical Machinery	2.2	2.1	2.4
Transportation Equipment	2.4	13.5	3.2
Other Durables	0.4	3.1	3.6
Non-Durable Goods	19.9	8.6	13.2
Food	15.1	2.6	2.8
Text and Apparel	-- -	-- -	---
Paper	3.5	1.2	1.1
Printing	1.3	1.2	1.7
Chemicals, Petroleum & Coal	0.2	1.9	2.1
Other Non-Durables	---	1.7	5.5
Non-Manufacturing	39.4	43.9	53.3
Construction	3.9	4.3	5.3
Transportation, Communications and Utilities	5.7	6.1	7.5
Wholesale Trade	2.0	4.4	5.9
Retail Trade	13.1	14.9	16.0
Finance, Insurance & Real Estate	4.4	3.3	4.7
Service and Miscellaneous	10.3	10.2	12.6
Mining	-- -	0.6	1.3
Government	15.8	14.2	15.6
Federal	5.7	1.9	4.2
State and Local	10.1	12.3	11.4

Source: MESC and Statistical Abstract of the United States, 1960.

Although the Battle Creek area had proportionately more manufacturing employees than Michigan it had proportionately less in the durable goods category and more than twice as many in the non-durable goods category. The county had a greater percentage of employees in both durable and nondurable goods manufacture than the United States. The proportion of the labor force engaged in manufacturing, and the division of manufacturing employment between durable and nondurable goods, are crucial factors in the economic performance of the region. This will be discussed further in the section on manufacturing.

The Structure Of Local Economies

We have assumed so far, that Calhoun County is a uniform economic unit. This is not true. Calhoun County contains three dissimilar urban economies: Albion, Marshall, and Battle Creek; and a farming economy scattered throughout the county. The county also has some townships which are primarily agricultural but which are becoming urbanized. We now must define the structure of each of the economic subunits of the county. This is difficult because most data is reported for the county as a whole. The only source of data for employment in the smaller economic units of the county is the 1950 Census of Population. Besides being 10 years out-of-date, it reports employment by industry only of residents. It does not take into account those people who reside immediately outside city limits and work within the city, and, therefore, does not accurately depict the magnitude of economic activity in each of the locations.

The 1950 Census of Population reports 48,666 people living in Battle Creek, about 40.3 per cent of the county population. However, if we add to this the nonfarm residents of the four townships which surround the city of Battle Creek, the population is 81,639, or about 67.6 per cent of the county total. The total nonagricultural employment of the Battle Creek area (Battle Creek city plus four surrounding townships) is closer to 67 per cent of the county total than it is to the 45 per cent who reside within the city limits of Battle Creek. In Table 4, the same adjustments in employment are made for Albion and Marshall. This table was computed from 1950 population statistics, and nonagricultural residents for the townships immediately surrounding

Table 4

Estimates of Per Cent of Labor

Force of County Within Urbanized

Areas, 1950

	Pop. 1950	% More Ag. Residents	% On Labor Force Area	% of County
Albion	10406	1950	10406	
Albion Township	943	39	267	
Sheridan Township	1571	60	942	
			11615	9.6
Battle Creek	48666		48666	
Battle Creek Township	15105	98	14803	
Bedford Township	9213	90	8292	
Pennfield Township	4144	75	3104	
Emmet Township	7362	92	6774	
			81639	67.6
Marshall	5777		5777	
Marshall Township	1135	38	727	
Marengo Township	1430	43	614	
			7118	5.9
Remainder				16.9
Total County	120813			100.0

Albion, Battle Creek and Marshall. These calculations give a more accurate picture of the distribution of employment within the county than does the raw census data. This calculation magnifies the importance of the Battle Creek area to the county and reduces somewhat the distorted picture of employment in the "remainder" category.

We have solved (at least partly) the problem of estimating the magnitude of economic activity in each of the regions. But, we cannot say accurately what the employment is in each industry in each area. However, much useful information can be gained by using the 1950 Census breakdowns as presented in Table 4. For purposes of comparison the data has been converted to percentage breakdowns by industry category for each of the locations in Table 5. We have also, in Table 6, divided the employment in each industry by employee's residence. To illustrate the use of these two tables, in 1950, 14.4 per cent of the employment in the remainder of Calhoun County (that area excluding the cities) was agricultural (Table 6). This represented, however, 94.9 per cent of all agricultural employment in the county (Table 7). It must be remembered in the use of these tables, and especially in Table 6, that there is a tendency to underestimate the per cent of employment of each industry in the cities and overestimate the per cent of employment in the remainder of the county.

There is a higher proportion of the labor force of Albion in manufacturing than of the county or Battle Creek or Marshall. Albion has a smaller proportion of its labor force in utilities; wholesale, and retail trade; and finance, insurance and real estate. This is probably due to the location of Albion. Albion is at the eastern edge of the county, just west of Jackson. Much of the activity in the utilities and trade categories is carried on in either Jackson (mainly because it is a larger city), Marshall (because of its central location in the county), or Battle Creek (because it is, after all, the economic hub of the county). There is a large porportion of the labor force in Albion in the service category, and this is undoubtedly due to the location of Albion College within the city.

Table 5

Employment by Industry Group, Calhoun County, Albion Marshall, and Battle Creek, 1950

	County	Albion	Battle Creek	Marshall	Other
Agriculture	2827	35	73	36	2683
Mining	19	--	4	--	15
Construction	1974	126	819	106	923
Manufacture	17495	1555	7748	854	7338
Transportation, Communication & Utilities	3145	122	1737	108	1178
Trade	7484	565	3813	467	2639
Finance, Insurance & Real Estate	1191	69	646	136	340
Business & Personal Service	2414	204	1264	161	785
Professional and Other Service	5129	579	2753	224	1573
Public Administration	1407	99	747	100	461
Other	1908	224	860	126	698
Total	44993	3578	20464	2318	18633

Source: Census of Population of United States, 1950

Table 6

Percentage Distribution of Location's

Employment by Industry

1950

Total	County	Albion	B. C.	Marshall	Remainder
Agriculture	6.2	1.0	.4	1.6	14.4
Mining	--	--	--	--	.1
Construction	4.4	3.5	4.0	4.6	5.0
Manufacture	38.9	43.5	37.9	36.8	39.4
Utilities	7.0	3.4	8.5	4.7	6.3
Trade	16.6	15.8	18.6	20.1	14.2
Finance, Insurance & Real Estate	2.6	1.9	3.2	5.9	1.8
Service	16.8	21.9	19.7	16.6	12.6
Government	3.1	2.8	3.7	4.3	2.5
Other	4.2	6.3	4.2	5.4	3.7
Total	100.0	100.0	100.0	100.0	100.0

Source: Census of Population of United States, 1950.

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Table 7

Percentage Distribution of
Industry Employment by Location
1950

	Albion	B. C.	Marshall	Other	County Total
Agriculture	1.2	2.6	1.3	94.9	100.0
Mining	--	21.1	--	78.9	100.0
Construction	6.4	41.5	5.4	46.7	100.0
Manufacture	8.9	44.3	4.9	41.9	100.0
Utilities	3.9	55.2	3.4	37.5	100.0
Trade	7.5	50.9	6.2	35.3	100.0
Finance, Insurance & Real Estate	5.8	54.2	11.4	28.5	100.0
Business & Personal Service	8.5	52.4	6.7	32.5	100.0
Professional & Other Service	11.3	53.7	4.4	30.7	100.0
Government	7.0	53.1	7.1	32.8	100.0
Other	11.7	45.1	6.6	36.6	100.0
Total	8.0	45.5	5.2	41.4	100.0

County = 100

The city of Battle Creek, as would be expected of a large urban center, has a much higher percentage of its employment in the service industries than does the county as a whole. The percentage of employment in the government category was higher in 1950 than the county as a whole, (this percentage is even higher today due to the location in the city of several Federal organizations). The percentage of Battle Creek's labor force in manufacturing may be underestimated because of the residence of manufacturing employees immediately outside the city limits.

Marshall is in the geographic center of Calhoun County, and is also the county seat. This results in some interesting features in its employment characteristics. The percentage of employment in the government category is higher than for any of the other areas. And also because of its central location, Marshall is somewhat of a trading center. Therefore, a high proportion of its labor force is engaged in wholesale and retail trade. Furthermore, because of the location of the state offices of a large insurance company in the city, there is a high proportion of the labor force in finance, insurance and real estate (5.9 per cent of the total labor force of Marshall and about 11 per cent of total employment in this category in the county).

The remainder of Calhoun County (that area not contiguous to any of the three cities) actually has about 20 per cent of the total employment in the county--not the 41 per cent indicated in Table 7. The employment in these out-county areas is heavily agricultural with a number of service and trade establishments to serve the rural population.

Now we have a rough picture of the structure of employment in Calhoun County, the three city areas, and the rural regions, as of 1950. Now we can examine the past and present trends in these employment sectors in order to better understand the foundation of the problems of Calhoun County. Limitations in the availability of data make it difficult to pinpoint how the various trends and fluctuations affect each area in the county, however, an attempt will be made to point up the significance of the major trends for

each. This has been a somewhat long introduction to this study, but it is necessary in order to have a complete understanding of the economic problems of the area. The next section of the report will be concerned with agriculture in Calhoun County and the agricultural problem in general. After this there will be a section on manufacturing, which is, in essence, the heart of the report. Also included will be a section on the service industries and a concluding sector on industrial location and the promotion of industrial development.

III. THE AGRICULTURAL PROBLEM AND CALHOUN COUNTY AGRICULTURE

Calhoun County is no longer primarily an agricultural county. In 1959, approximately 2.1 per cent of the population of the county was engaged in agriculture compared to 3.4 per cent of the population of the United States. However, the agricultural section of the economy does make a significant contribution to the wealth of the county and an analysis of the problems and prospects of this sector is justified. No discussion of the agricultural segment of the particular economic or political area can be intelligently undertaken without a clear understanding of the national farm problem confronting us.

The National Farm Problem

The farm problem results from four factors:

(1) Increases in farm labor productivity,

(2) Flexibility of farm prices vs. rigidity of non-agricultural prices,

(3) Relatively inelastic demand for farm products,

(4) Immobility of farmers and lack of alternate opportunities.

During 1959 U.S. total farm output was 23 per cent above the 1950 level, but the population--the prime determinant of agricultural demand--only increased 19 per cent in the same period, and net farm income decreased by 3.1 per cent. Today one farm worker supplies food, fiber, or tobacco for almost five times as many people as in 1820, and for almost three times as many as in 1900 (See table 8). As a result of increased mechanization and improved agricultural techniques, farm output has continued to rise at a faster rate than population. To add to the troubles of the farmer, while output was increasing faster than population, we have come to spend a smaller proportion of our increasing national income on food and more on manufactured goods, housing, travel, recreation, education, and medical services. While national income increases and a smaller fraction of the total budget of the economy goes for food and farm products, technological improvement in agriculture continues to increase the productivity of the farmers. Less and less of the labor force needs to remain on the farm.

Table 8

Persons Supported by Production of One Farm Worker, 1820-1955 (selected years)

Year	Persons Supported Per Farm Worker
1820	4.12
1840	3.95
1860	4.53
1880	5.57
1900	6.95
1920	8.27
1940	10.81
1945	14.69
1950	15.49
1955	19.74

Source: U.S.D.A. Agricultural Research Service, Changes in Farm Production and Efficiency, 1956.

The demand for most food and fiber products is rather inelastic. That is, changes in price have little effect on the amount purchased. When farm income falls, as it does in a depression, the natural thing for a farmer to do is to try to produce more to maintain his income. When all, or most, of the farmers produce more, the supply of agricultural commodities increases. Since people do not buy much more agricultural products when prices fall substantially, the increase in supply only results in a drastic fall in farm income. Thus as the farmers try to increase their income, the effect of their actions is to reduce their income. One of the farmers' difficulties arises from their individual size relative to the size of the market. This allows them no control over commodity prices; they must take whatever price the market offers even if that price does not cover their cost of production. When farm income is low, operators tend to increase their efficiency to reduce cost per unit; but this increases output, which, because of the total amount of farm products demanded by consumers does not increase the result is still lower commodity prices.

The prices of farm products fall readily and rapidly in periods of declining income and demand, for the farm sector approximates pure competition. The urban, industrial sector, on the other hand, is subject to considerable price rigidity. The farmers caught during the depression between rapidly falling prices for the things he sells and maintained prices for the goods he buys (as seen in table 9).

One of the important long-term trends in our history has been the movement from farm to city. In depression periods, however, the normal movement of population is reversed. A back to the land movement tends to swell the population of the poor areas of agriculture worsening the overall situation (Chart 4).

During, and just after both world wars, prices of farm products rose more than the wholesale prices of manufactured goods. When the demand weakened, however, farm prices declined, but production remained high. In industry, on the other hand, price declines are

Table 9

Indexes of Industrial & Agricultural Production, United States, 1913-1955 (Selected Years)

Year	Agricultural		Industrial	
	Production	Prices Received by farmers	Production	Wholesale Prices of commodities
1913	60	38	34	50
1919	66	80	39	92
1921	62	46	31	75
1929	74	55	59	65
1933	70	26	37	51
1939	80	35	58	58
1944	97	73	125	70
1949	101	92	97	101
1955	112	87	139	117

Source: Statistical Abstract of United States

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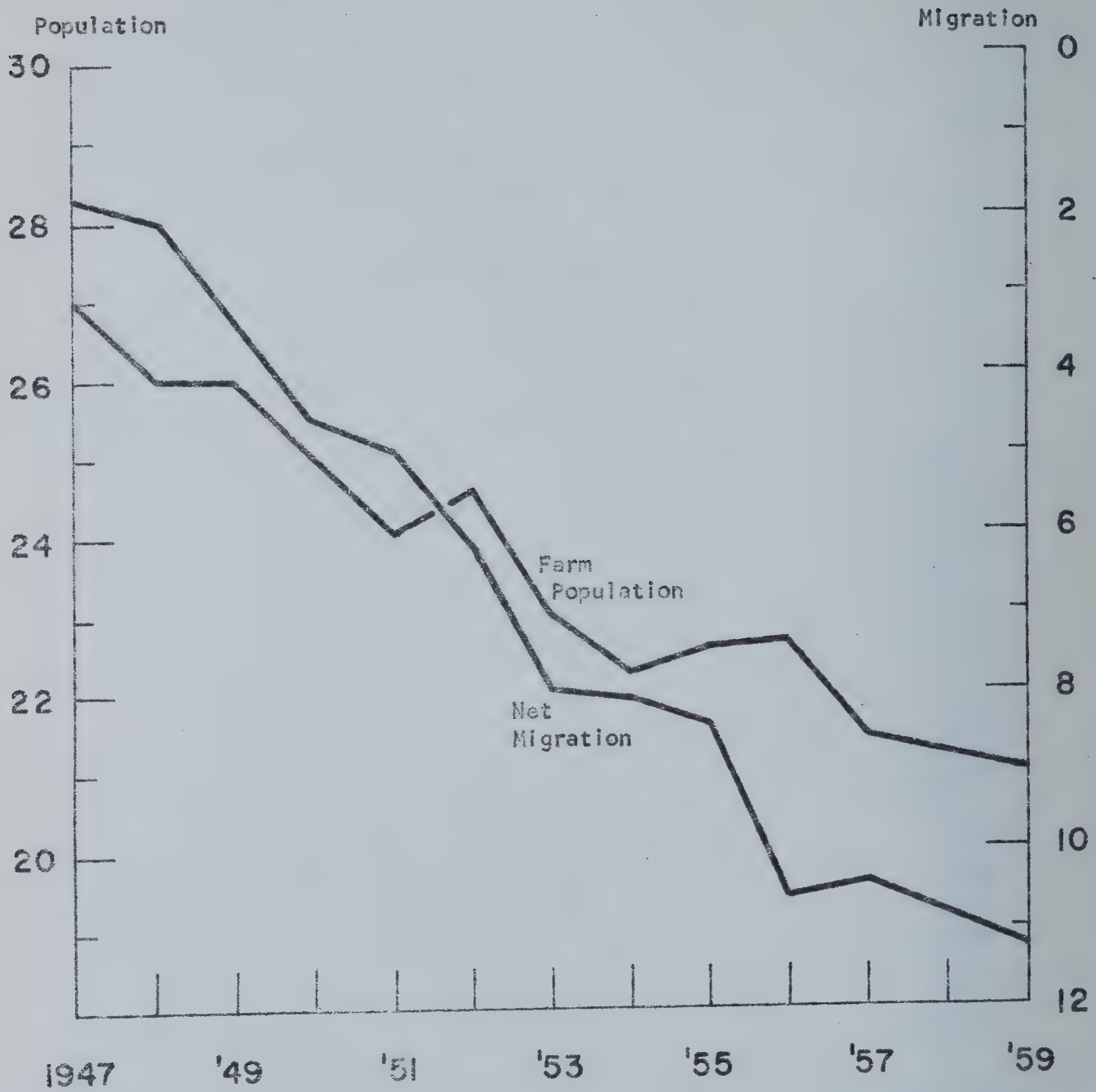


CHART 4

FARM POPULATION TREND 1947-1959

Source: Statistical Abstract of the United States.

moderated by a reduced output. In prosperous times the demand for agricultural products increases, however, this demand does not increase as rapidly as the demand for nonagricultural products. Furthermore, as demand increases are communicated to the farmer production increases in response to rising prices tend to drive them down.

Two important questions should be raised at this point. First, why did not the farmer, like the manufacturer, recognize the existence of unfavorable demand conditions and reduce output all along the line? Second, why has not the farm population decreased rapidly enough to keep farm income high? First of all, in order for farmers to reduce output in response to unfavorable demand conditions, it is necessary that a large majority of all farmers producing any one agricultural commodity be organized. This is extremely difficult given a wide geographical distributional production, the large distances between farms, and the traditional belief of the farmer in the competitive market.

The farmer seldom goes out of business, thus farming is less sensitive than most industries to changes in demand conditions. Those who have lent money to farmers are usually sufficiently lenient to allow him to continue in business, even though he defaults on his obligations. Even when he loses his farm through mortgage foreclosure, he is often permitted to remain on the land and cultivate it. Moreover, it is practically impossible for the independent growers of a crop to cooperate with one another voluntarily, to reduce output and maintain prices as manufacturers sometimes do. So long as the farmer can stay on the land, he is likely to keep on producing to the upmost of his ability, for his total costs are largely fixed. The farmer cannot save much by laying off his own labor and that of his immediate family. Furthermore, when prices of his products fall, he can save comparatively little by cutting output. Indeed, falling prices of farm products, within limits, may result in increased rather than decreased farm production, since it takes more bushels of wheat, or pounds of cotton to pay a given amount of taxes or insurance when the prices of farm products are low than when they are high.

Another reason for the inadequate movement out of agriculture has been the high population increases in that sector. Surplus population quickly piles up in the agricultural sector when movement out of that sector is impeded. Movement out of agriculture has been made difficult by several factors. The major factor is that it takes money to move. Low incomes reduce mobility. The poorest farmers are continually in debt and therefore unable to finance a move. Furthermore, the farmer may not know where and if he can find a job. On the farm, he is at least guaranteed a subsistant standard of living. The farmer often just likes farming; and if he is past middle age, he simply does not know what else he can do. Movement usually takes place among the younger generation. Finally, and most important, in an economy with widespread industrial unemployment, there is simply no place that the farmer can go.

In the post-war years, 1947-1959, there was an in-migration of about 11 million from farm to non-farm residences. However, because of the excess of births over deaths in the farm population, the number of persons living on farms declined by only one half that number: from 27 million in 1947 to 21 million in 1959. In 1947, one out of five persons lived on farms: In 1959, one out of eight were farm residents.

According to an audit of the Federal Reserve Bank, about 30 per cent of the farmers in the United States are part time or residential and provide only about one per cent of total agricultural commodities. Forty-three per cent of all farms had gross income sales of farm commodities of less than $5,000, and as a group, provided 19 per cent of the total farm products marketed. Thus, about seventy-five per cent of the farms produce only about 20 per cent of total output. The annual output of farm commodities is estimated to exceed the amount that could be sold at higher prices by about 10 per cent or more. It is possible that farm population on two-fifths of the nation's farms could shift to nonagricultural employment without reducing farm output below the amount which could be sold commercially at reasonable prices for domestic consumption and export.

Technological progress is making human labor inefficient. With bigger and better machines, improved production practices, better feeds, more and better fertilizers, and pesticides, it is possible for a single worker to operate many more acres of land than formerly and to care for more livestock. As a consequence, a number of farms, and hence farmers and family workers have declined and will continue to decline.

In the 1950s, farmers adopted many new farming techniques at a rapid rate. Many of these new techniques contributed to increased farm production. Prices received by farmers in Michigan tended to remain constant or even fall a little while farm costs continued to rise throughout the decade (Chart 5). The resulting income squeeze has been widely felt throughout agriculture. In Southern Michigan, for example, cooperators in the Michigan State University project have worked on their farms since 1953 for average labor return of less than $1 per hour. These account cooperators presumably rank above average in skill and managerial ability; most of them have $40,000-$100,000 in farm businesses grossing from $10,000-$50,000 or more.

Programs and proposals for easing the income squeeze have commonly been directed toward:

(1) Providing supplementary price income payments from public funds,

(2) Increasing demand for farm products,

(3) Reducing the inputs of land, labor, or other resources used in farming.

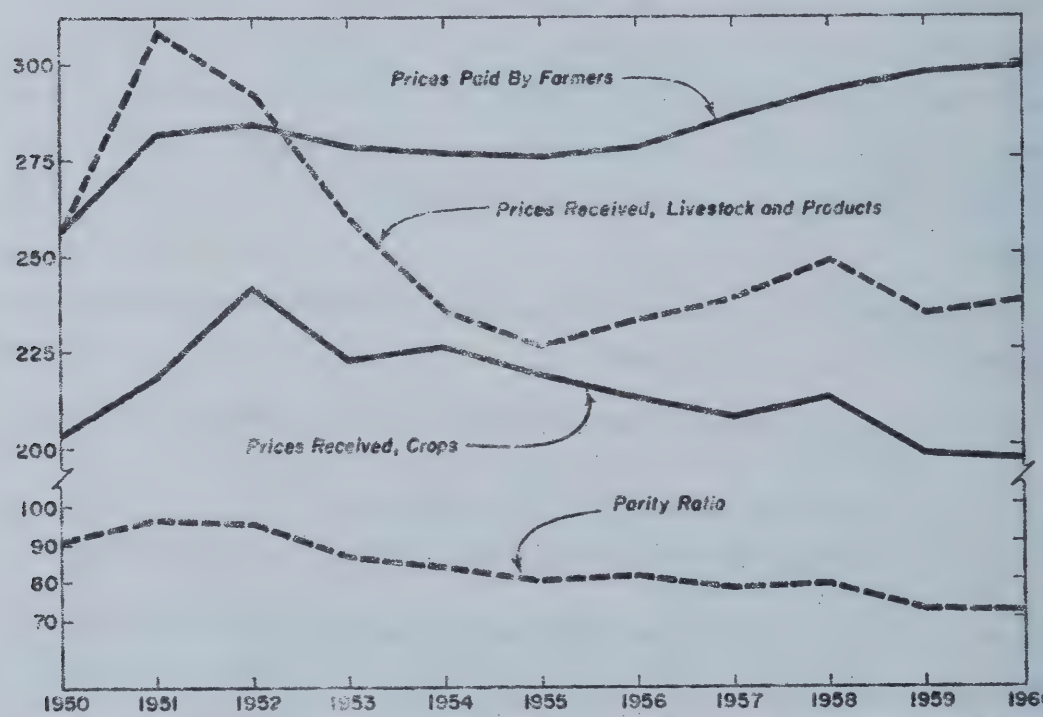
Neither public payments nor increased demands provide the lasting solution for the farm problem and the flow of inputs of agricultural production continues at a relatively high level.

Agriculture In Calhoun County

The foregoing discussion has not intended to suggest that all agricultural regions in the country have suffered to the same degree,

CHART 5

INDEXES OF PRICES PAID AND RECEIVED BY MICHIGAN FARMERS
(1910-1914 = 100)



SOURCE: Michigan Department of Agriculture. Prices paid are averages for the United States. 1960 figures are averages for the first 10 months.

nor is it true that all agricultural industries are not prospering, but if there are regions that are prospering or doing better than agriculture in general, it is because of some unique circumstances associated with that type of production in which they are engaged or their product market.

Most of Calhoun County's agricultural area is contained in the boundaries of area II of Michigan's 17 farm areas. This area, defined as dairy, livestock, and corn, also includes parts of Kalamazoo, Barry, St. Joseph, Cass and Branch Counties. During 1954, the value of all products sold by Calhoun County farmers totalled 11 million dollars; 27.9 per cent of this was from sale of livestock, 27.2 per cent from sale of dairy products, and 38.3 per cent from sale of crops (Table 10). In 1959, 59.6 per cent of all farms in Calhoun County were classified as commercial. Dividing the commercial farms of Calhoun County into economic class by total sales, we find the distribution very similar to that of the state as a whole, except for the fact that there are fewer farms in category six (with sales under $2500) and proportionately more farms in categories four and five (sales between $2500-$9999). There are also proportionately fewer farms in Calhoun County in the upper income categories. On the whole, then, we could say that Calhoun County is in a middle income farming region.

Vast changes have taken place in Calhoun County and Michigan agriculture in the past ten years. The average size of farms has increased at every census taken since 1935. It is now 152.4 acres for Calhoun County and 132.2 acres for the state. This represents an increase in size of 26.6 per cent for Calhoun County since 1949 (Table 12).

The number of farms has declined as farm size has increased in every farm census since 1935. For both Michigan and Calhoun County there has been a twenty-eight per cent decline in the number of farms since 1949. The dollar value of the Michigan and Calhoun County farmers investment in land and buildings has increased sharply over the past decade, even when it is measured per acre, eliminating the increase of farm size. (Table 13).

Table 10

Value of Products Sold, Distribution

By Sector, Michigan & Calhoun County,

1954

	Calhoun	Michigan
Total Value of Proudcts Sold	100.0	100.0
Crops	38.3	46.5
Livestock	27.9	17.6
Dairy	27.2	27.8
Poultry	6.2	7.4
Forest	0.3	0.6

Source: Census of Agriculture of the United States, 1954.

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Table 11

Farm Distribution by Economic Class

Calhoun County and Michigan, 1959

Class Sales	% Calhoun	% Michigan
All farms	100.0	100.0
Non Commercial	40.4	41.8
Commercial	59.6	58.2
% of Commercial Farms		
I ($40,000 +)	1.7	1.7
II (20000-39999)	6.7	5.9
III(10000-19999)	17.9	19.6
IV (5000-9999)	31.2	29.8
V (2500-4999)	36.2	33.3
VI (50-2499)	6.2	9.8

Source: Census of Agriculture of the United States, 1958 (preliminary)

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Table 12

Comparison of Michigan and Calhoun County Agriculture

1954 and 1959

	Calhoun		Michigan	
	1954	1959	1954	1959
Average Size of Farms (acres)	131.7	152.4	118.5	132.2
Land and Building Value per Farm (dollars)	16587	27610	15,495	25,100
Land and Building Value Per Acre (dollars)	118.98	180.68	130.43	190.33
Value of Tax vs. product sold Per Farm (dollars)	3757		3923	

Source: Census of Agriculture of United States, 1954 and 1959 (preliminary).

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Table 13

Agricultural Change 1949-1959

Calhoun County and Michigan

	Calhoun	Michigan
Number of Farms	-28.0 %	-28.1 %
Resident Operators	-29.7	-29.5
% Land in Farms	- 8.8	- 9.2
Average Size of Farms	+26.6	+19.1
Land and Building Value Per Farm	+23.7	+129.0
Land and Building Value Per Acre	+95.8	+99.3
Cropland Harvested	- 4.0	- 8.2
% Tenancy	-23.3	-56.5
Farmers Working 100 or more days off farm	-12.5	- 4.5
Number of Trucks	+31.8	+27.3
Number of Tractors	+28.5	-17.1

Source: Census of Agriculture of United States 1949 and 1959 (Preliminary).

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Farm income, unlike the other factors discussed here, has been characterized by year to year fluctuations rather than trends persisting over a number of years (Table 14). Changes in farm prices, which attract most attention, are partly responsible for the variations. A downward trend in the parity ratio is noticeable over the past decade. The prices paid by farmers have generally increased, while the prices they received have not.

In evaluating the parity ratio, two things should be kept in mind. First, the figures are computed from a 1910-1914 base period, which means that the 100 per cent parity simply represents the price relationships that prevailed in those years, and not necessarily the "correct" or "fair" relationship. Second, productivity in agriculture has increase. In industry, increased productivity makes wage and profit increases possible without price increases. In agriculture, increases in productivity make it possible for farm income to increase even though income per bushel of grain is going down. Farm income in Michigan has not declined along with the parity ratio, but it has fluctuated from year to year (Table 4). The declining parity ratio indicates that farmers have been subject to economic pressures; the income statistics show that they have been partly successful in meeting this pressure through more efficient operations and increase of size.

Net income per farm in area II, which includes Calhoun County, has been considerably higher than income per farm in Michigan as a whole. (However, it must be remembered that area II farms include only a sample of the commercial farms in the area). Furthermore, the rate of decline in number of farms in Calhoun County has been slower than the rate of decline for the nation, and the rate of increase for the size of farms has exceeded both the state and the national rate. The value of land and buildings per farm, while increasing at a slower rate than that of Michigan as a whole, is still above the Michigan average. On the basis of these facts it seems safe to conclude that agriculture fairs somewhat better in Calhoun County than in the state as a whole. This is at least partly due to the fact that production in Calhoun County is primarily for "local" markets. During the past two decades, population in the market area of Calhoun County (the county is located within an hour or so of five of Michigan's urban centers)has increased very rapidly.

Table 14

Income Per Farm in Michigan, 1950-59

(in dollars)

Realized Income

Year	Gross	Net	Net Income*
1950	4,502	1,752	1,733
1951	5,458	2,194	2,364
1952	5,534	2,146	2,300
1953	5,472	2,119	2,167
1954	5,371	1,953	1,841
1955	5,385	1,836	1,824
1956	5,771	1,989	2,040
1957	6,102	2,082	1,907
1958	6,448	2,158	2,464
1959	6,450	1,892	2,059

*Includes adjustment for changes in inventories.

SOURCE: Michigan Department of Agriculture.

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Table 15

Michigan Indexes of Prices Received, Prices Paid and Ratios, 1950-1959

(1910-1914 = 100)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Livestock										
All Livestock	256	309	293	260	236	227	233	239	249	235
Dairy	242	290	302	262	244	246	265	264	252	258
Meat Animals	339	406	358	289	283	239	228	270	320	290
Poultry	186	230	203	220	169	178	177	156	161	128
Crops										
All Crops	203	218	242	223	226	219	213	208	213	199
Corn	204	221	249	214	220	210	213	206	213	186
Fruits	196	199	218	223	154	236	215	211	216	204
Vegetables	215	232	279	262	223	226	232	236	250	261
Feed Crops	156	181	180	163	164	145	150	139	133	133
All products	234	271	273	244	233	224	228	226	234	220
Prices paid, interest taxes and wages	256	282	287	279	277	276	278	286	293	298
Ratios	91	96	95	87	84	81	82	79	80	74

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A significant point about the displacement of farm labor is that Michigan has been able to provide jobs for its migrants more readily than the nation as a whole (although this has not been true during the last two or three years). The proximity of Calhoun County to urban centers has been extremely important in providing an inducement for excess resources to leave agriculture, so as not to depress the average income of farms in the county to the national average. The proximity to rapidly expanding industrial centers seems to be the most important factor in the recent history of Calhoun County agriculture. However, rates of growth of Michigan industry commensurate with those experienced since 1940 are unlikely. Without rapid industrial growth stimulating population growth and thus keeping agricultural demand high, more effort will have to be devoted to controlling commodity supplies.

According to the publication of Michigan Farm Economics, Farming in the Sixties, the crucial problem in farming is that of reducing inputs of land, labor, and other resources. Individual farmer's production decisions should be based on the goal of cutting back inputs in such a manner as to obtain more profit. In other words, they recommend the use of farming methods which will reduce gross income but reduce expenses more than proportionately, thereby raising net income (or perhaps reduce expenses while leaving net income the same). In concluding, this report says:

> Farmers as a group can hardly expect to succeed in farming more acres per man and using more inputs per acre unless there is a tremendous reduction in the number of men, in the number of acres, or in both. Even a rapid movement out of agriculture will not bring about full readjustment, although many of the individuals moving to off farm employment will probably find they have improved their own situation. Their actions are unlikely to result in any general reduction in farm output, however; for agriculture, as a whole, the prospect is for moderate to rapid expansion.
>
> Operators continuing in production will need to adopt many new practices and make carefully chosen investments. But adjustments that do not tend to expand total farm input should have a priority

attention and a special attraction for individual farmers and farm leaders, to the extent that they can be adopted profitably.

Mechanization and increased yields, the dominant forces of the 1950s will probably continue in the 1960s:

1. Cultivated land will continue to decline,
2. Farm labor will flow out of production,
3. Capital needs will increase,
4. Capital inputs purchased out of agriculture will increase.

Furthermore, a major trend in Michigan farming--the tendency toward production of supported products (sugar, beets, dry beans, wheat, and corn)--will probably continue or accelerate.

IV. MANUFACTURING AND THE EMPLOYMENT PROBLEM

The major economic problem in Calhoun County today, as well as the major economic problem in the United States today, is unemployment. As of December, 1960, 4,500 people in the Battle Creek labor market area (which includes all of Calhoun County) were seeking work and could not find it. Eight per cent of the total labor force of the area was unemployed during that month. This is surely an alarming situation and is of concern to all the residents of Calhoun County. However, as serious as the problem is, a firm understanding of the root of the difficulty is necessary before action is taken.

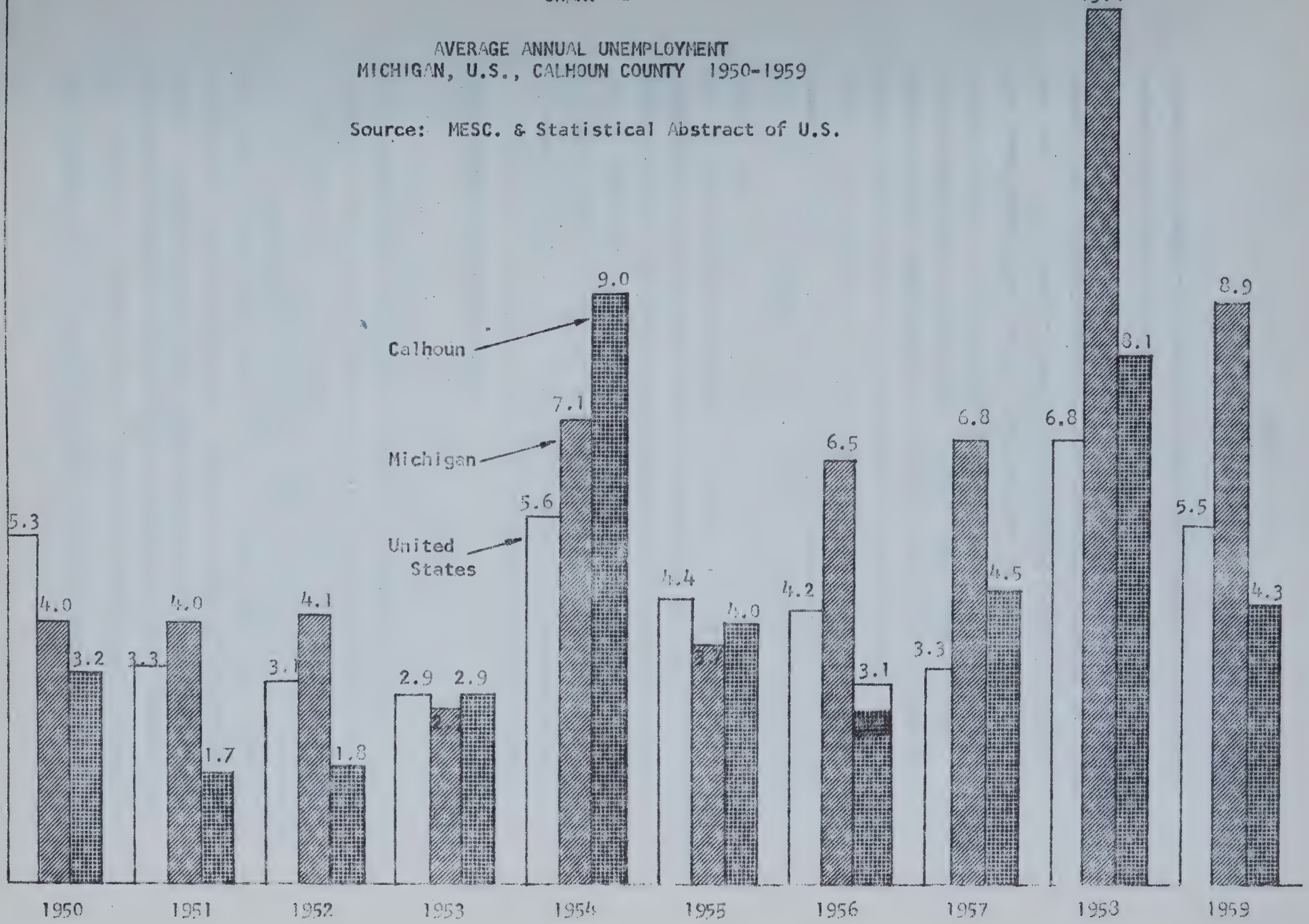
Unemployment In Calhoun County

There are two things we can say immediately about the problem of unemployment: first, as mentioned above, the problem is not strictly local; second, the problem is not a new one. In Chart 6, we have compared the percentage unemployment (average annual) of the United States, Michigan, and Calhoun County for the past decade. Although the unemployment problem in Calhoun County has been serious, it has not been bad by comparison to Michigan or the nation. In only 3 years; 1954, 1957, 1958, has unemployment in Calhoun County been above the national average. In 1954, it was above the national average because of the loss of important defense contracts at the end of the Korean War. In 1957 and 1958 the poor unemployment record was due to the severe recession. In the last ten years average annual unemployment in Calhoun County has been above the state average only three times, in 1953, 1954, 1955. It was above the state in 1953 mainly because this was a record low year for unemployment for the state of Michigan not because it was a bad year in the County. Thus the unemployment record of Calhoun County over the past decade has been superior to that of the state or nation. Furthermore, over the past decade the Battle Creek area's unemployment record ranks next to the lowest among the metropolitan areas of the state. We are left then with somewhat of a paradox;

CHART 6

AVERAGE ANNUAL UNEMPLOYMENT
MICHIGAN, U.S., CALHOUN COUNTY 1950-1959

Source: MESC. & Statistical Abstract of U.S.



while unemployment is a serious problem in Battle Creek area, the record is better than the state or nation and better than most of the metropolitan areas of the state.

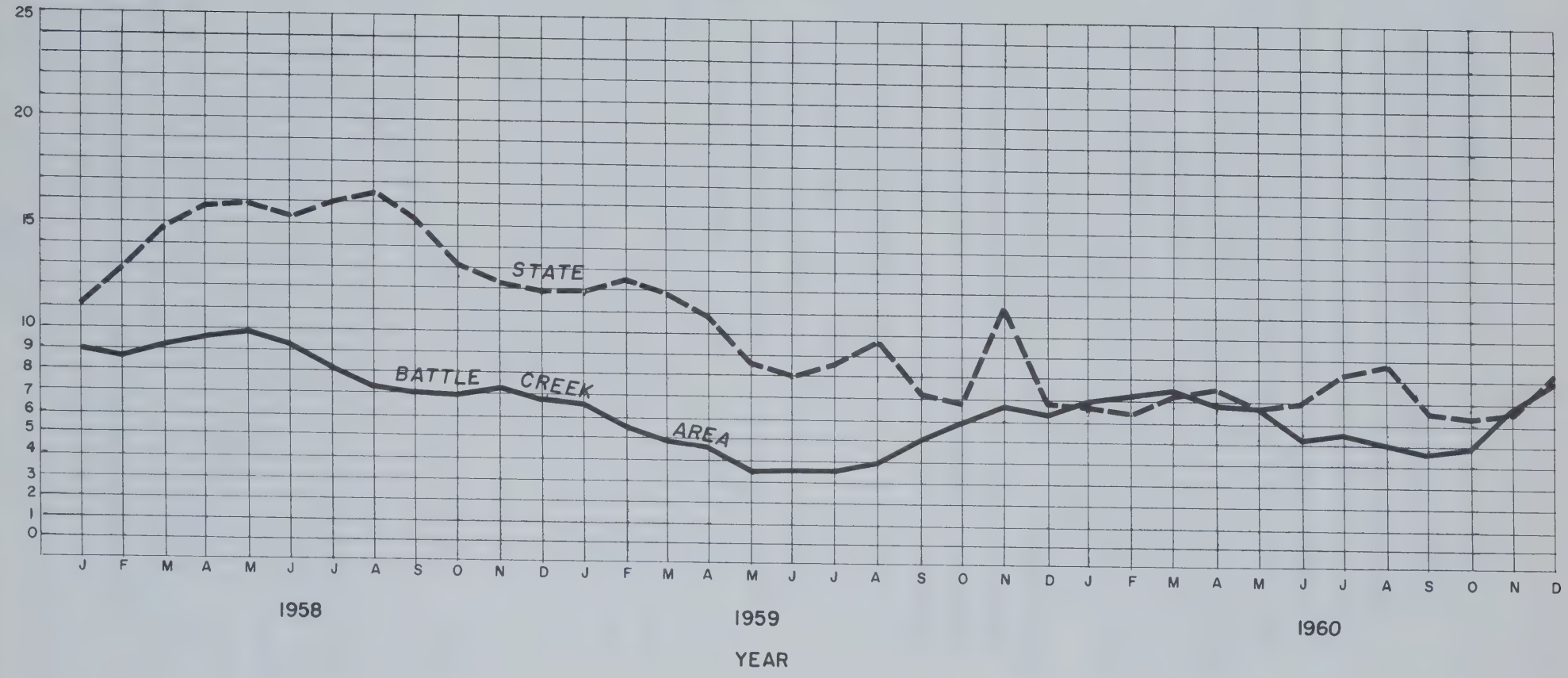
Before we go on to consider this, let us take a closer look at the unemployment situation in Battle Creek and the state over the past three years. In order to do this, we have plotted monthly unemployment for the state of Michigan and the Battle Creek area for the past three years on Chart 7. From January, 1958 through December, 1959, unemployment in the Battle Creek area was below the state average every month. Unemployment in the Battle Creek area hit a peak of close to 10 per cent in July, 1958, at the height of the 1958 recession. From that date on unemployment in the area decreasedvery steadily, to a low of just over 2 per cent in June, July, and August of 1959, then in October and November of 1959 under the impact of the shortage of steel caused by the steel strike, unemployment climbed steeply to about 6.5 per cent. Unemployment declined slightly in December, then increased for the next four months. It was during this period that unemployment in Calhoun County exceeded that for the state for the time (during the period). Unemployment in Calhoun County never recovered from the high rates caused by the steel strike. Instead, high levels of unemployment were sustained by seasonal layoffs, and then after a brief decline, rose again under the influence of general downturn of business activities caused by the present recession. To summarize the recent experience, after a recovery from the 1958 recession, heavy unemployment was induced by the steel strike of 1959 and after a further seasonal decline and brief recovery the national business recession of late 1960 took hold in the county. At the beginning of the three-year period, unemployment in Calhoun County was considerably below the levels in the state. All during the period the gap between the two levels narrowed until they became equal late in 1959 and again in 1960. Battle Creek has been considerably better off than the state in the past but in recent months, it has experienced unemployment at approximately the same rate as the state.

CHART 7

MONTHLY UNEMPLOMENT

AS A PERCENT OF TOTAL LABOR FORCE

MICHIGAN AND BATTLE CREEK AREA JAN, 1958 – DEC. 1960



SOURCE: M.E.S.C.

O-3318

Cyclical Employment Variations

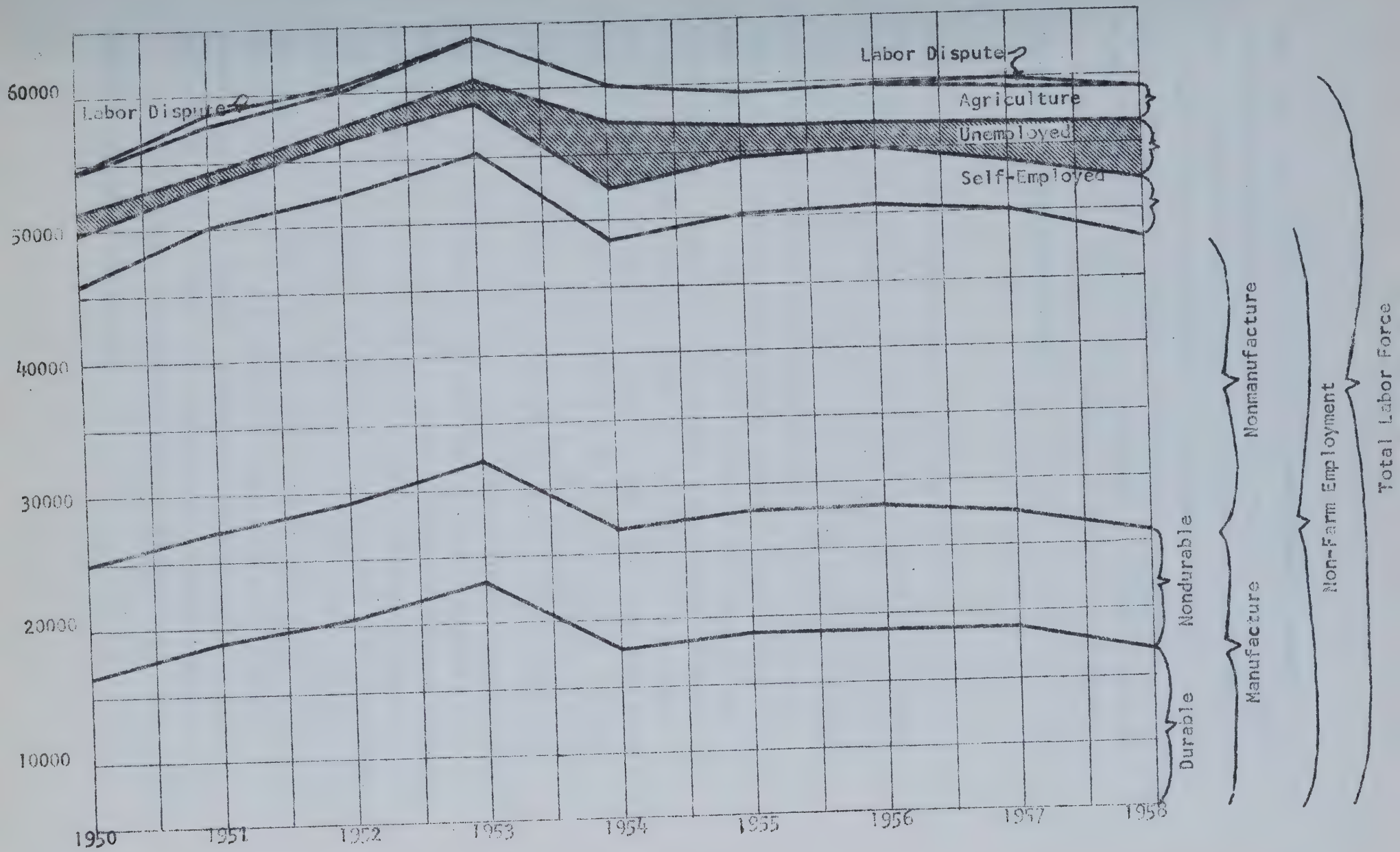
In order to understand the problems of unemployment in the Battle Creek area, we must look at variations in employment over the past decade. In Chart 8 we have depicted the levels of employment in each sector of the labor force of Calhoun County between 1950 and 1958. Agricultural employment has declined gradually over the period, as indicated by the slowly narrowing band of agricultural employment on the chart. Unemployment (the darkened area) has become a more serious problem throughout the period, especially since 1953. Self employment in the county has remained constant over the period. Now that we have accounted for agriculture, self employment, and unemployment, this leaves employees of nonagricultural establishments. This is divided into a manufacturing sector and a nonmanufacturing sector. It is obvious that the size of the nonmanufacturing sector has remained remarkably constant in size over the period. Furthermore, after increasing between 1950 and 1953, the nondurable goods sector of manufacturing employment has remained fairly constant. To recapitulate, agricultural employment has declined steadily; self employment has remained fairly constant; employment in nonmanufacturing has remained remarkably steady, and employment in the nondurable goods sector of manufacturing has remained fairly constant. Since employment in all these categories has fluctuated very little over the past decade, this leaves only one sector to be responsible for the large fluctuations in employment in the county. This is the durable goods sector of manufacturing.

Durable Goods And Unemployment

The close correspondence between fluctuations in employment in durable goods and fluctuations in unemployment is clear from Chart 9. Notice how every sharp downturn in durable goods employment is matched by a sharp upturn in unemployment. Furthermore from Chart 10 we can see that there is a clear relationship between the percentage of all manufacturing employment in durable goods and the level of unemployment. The Battle Creek area with the second lowest percentage of

CHART 8

VARIATIONS IN COMPOSITION OF LABOR FORCE BATTLE CREEK AREA, 1950-1958



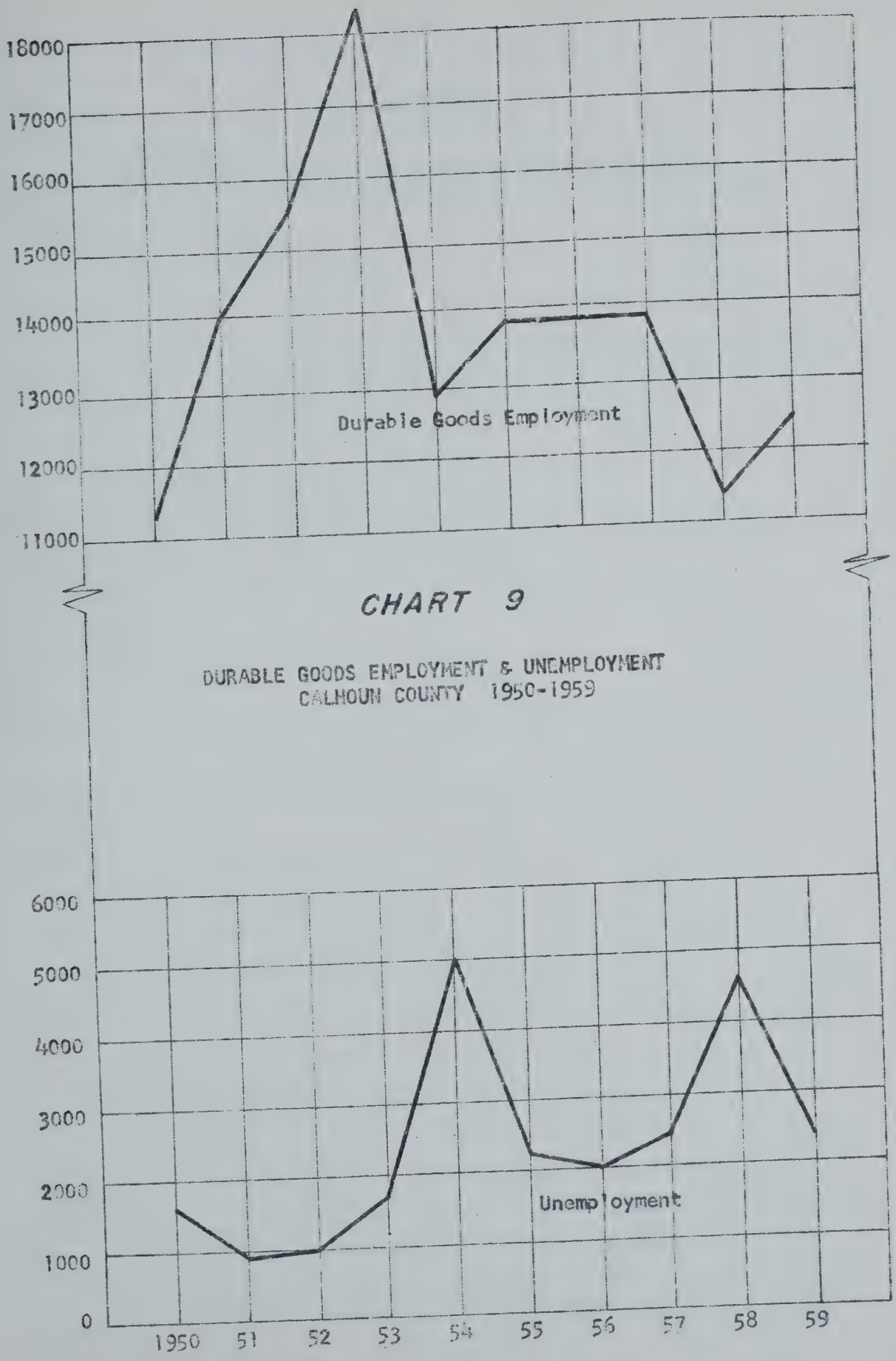
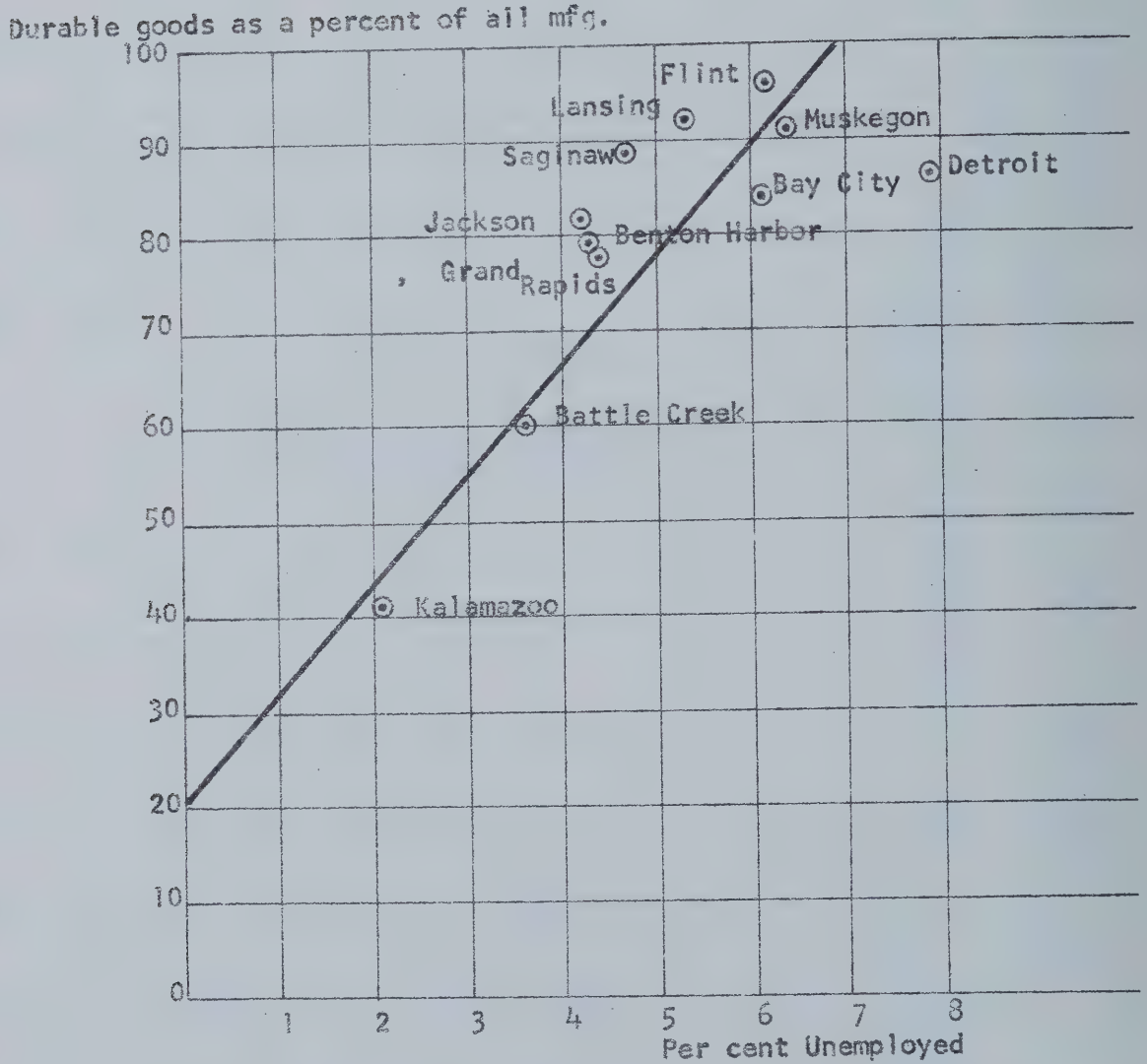


CHART 9

DURABLE GOODS EMPLOYMENT & UNEMPLOYMENT
CALHOUN COUNTY 1950-1959

CHART 10

RELATIONSHIP OF DURABLE GOODS MANUFACTURE TO UNEMPLOYMENT 1959



manufacturing employment in durable goods was also second lowest in per cent in unemployed. We have traced the root of the cyclical unemployment problem in Calhoun County to the durable goods sector. This is not only empirically true but, it is logically valid. In times of slack economic activity people reduce their expeditures on durable consumer goods--automobiles, washing machines, and pianos--but find it difficult to reduce their purchases of nondurables--breakfast foods, shoes, and dishes. We have also struck upon part of the reason why the fluctuations in employment in Calhoun County have not been as severe as in the state. This is because the area has a smaller percentage of employment in the durable goods category than either the state or the nation.

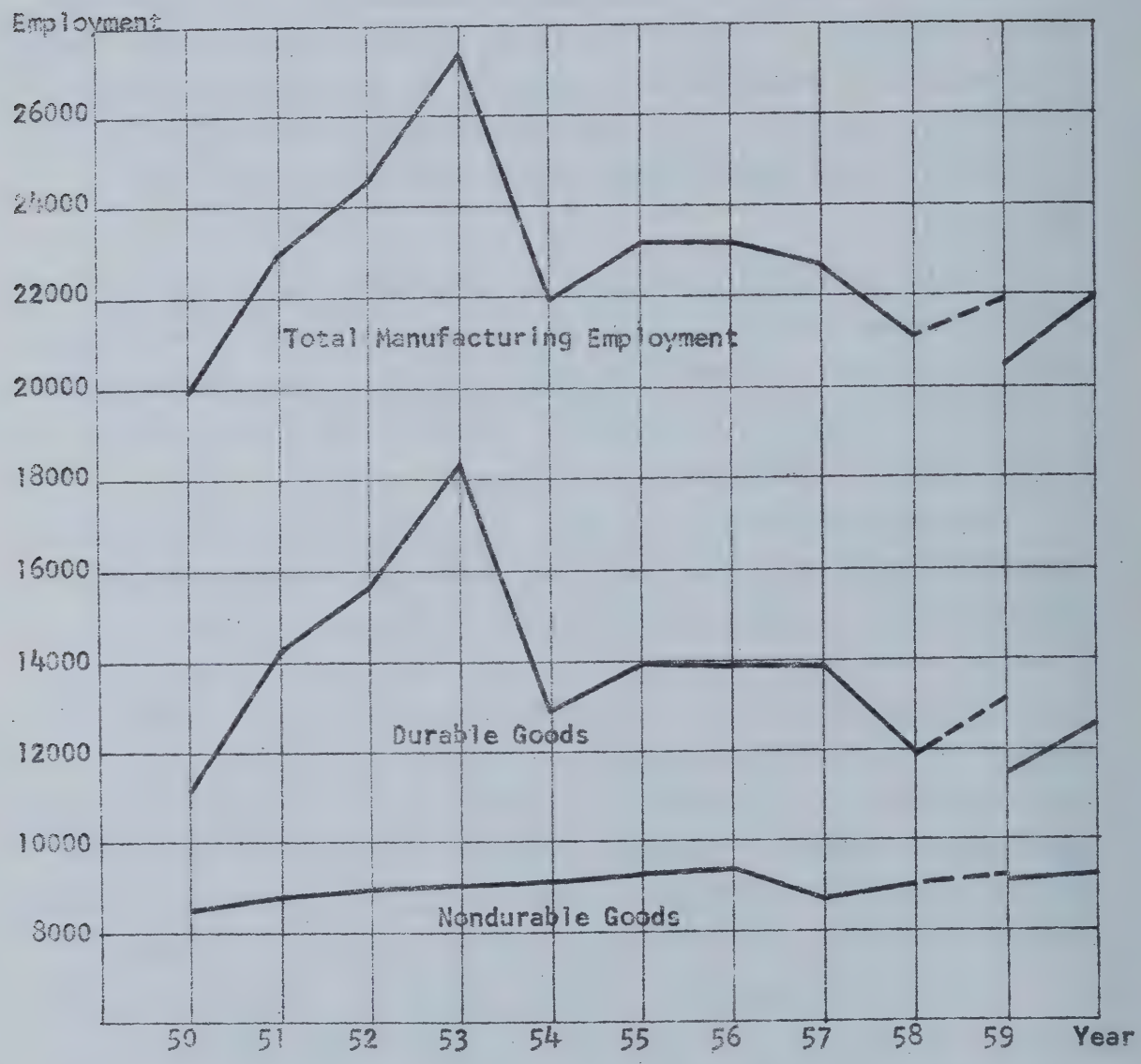
Now let us take a closer look at this durable goods sector. In 1959 employment in durable goods was about 45 per cent in machinery, about 20 per cent in fabricated metal products, 13 per cent in primary metals and 10 per cent in electrical machinery and 10 per cent in transportation equipment.

(Before going further, it should be noted that there has been an adjustment in the Michigan Employment Security Commission data in manufacturing. In 1958 classification of industries was put on the Standard Industrial Classification basis. This resulted in a shift of a large number of workers from the transportation equipment category to the machinery category. This, in all probability, resulted from a reclassification of Clark Equipment Corporation which manufactures industrial trucks. Therefore, the data for 1959 is not strictly comparable to that of earlier years. For basis of comparison we have resorted to the old classification in plotting all graphs).

In Charts 11 through 15, we have graphed the employment in each category of durable goods manufacturing between 1950 and 1959 for Calhoun County. Two outstanding features are clear from an examination of these graphs. First, there has been tremendous cyclical fluctuation in each of the categories. The most obvious of these fluctuations are the sharp downturns between 1953 and 1954--at the end of the Korean War--and in the recession of 1958. The other noticeable feature is that there is no apparent upward trend in any

CHART II

DURABLE GOODS, NONDURABLE GOODS &
TOTAL MANUFACTURING EMPLOYMENT
CALHOUN COUNTY 1950-1959



Source: MESC

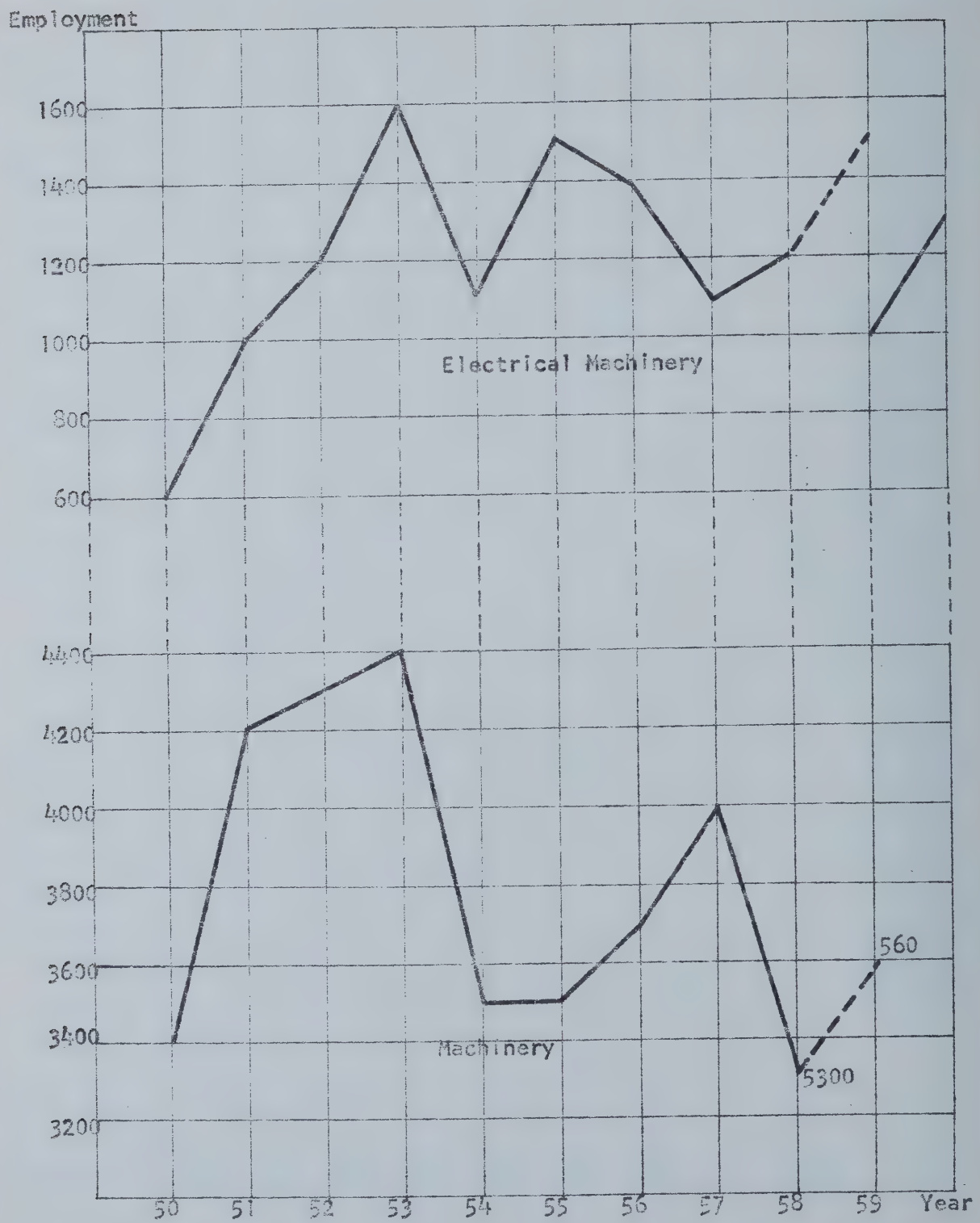
CHART 12

EMPLOYMENT, TRANSPORTATION EQUIPMENT
CALHOUN COUNTY 1950-1959

Source: MESC

CHART 13

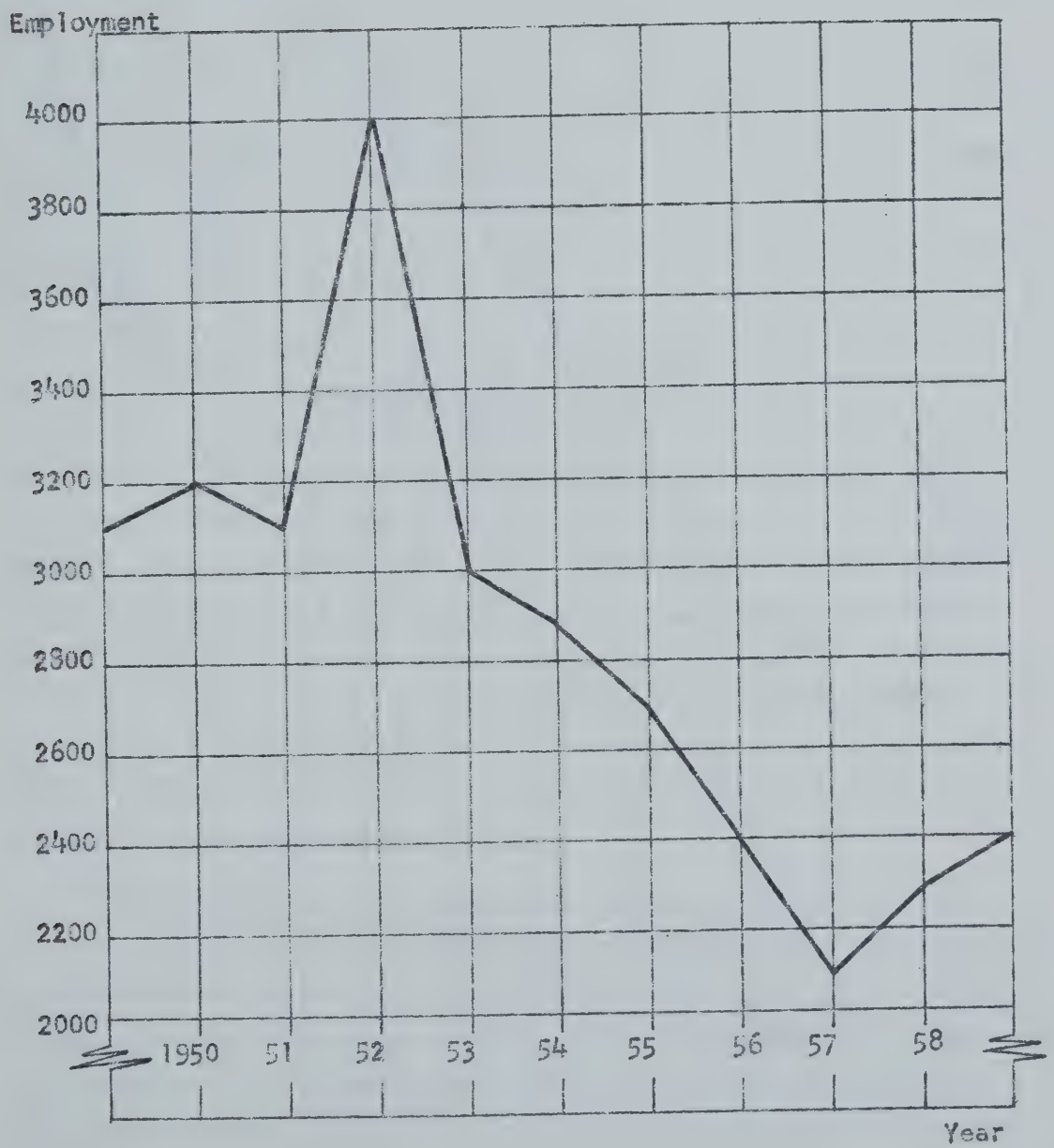
EMPLOYMENT, MACHINERY AND ELECTRICAL MACHINERY
CALHOUN COUNTY 1950-1959



Source: MESC

CHART 14

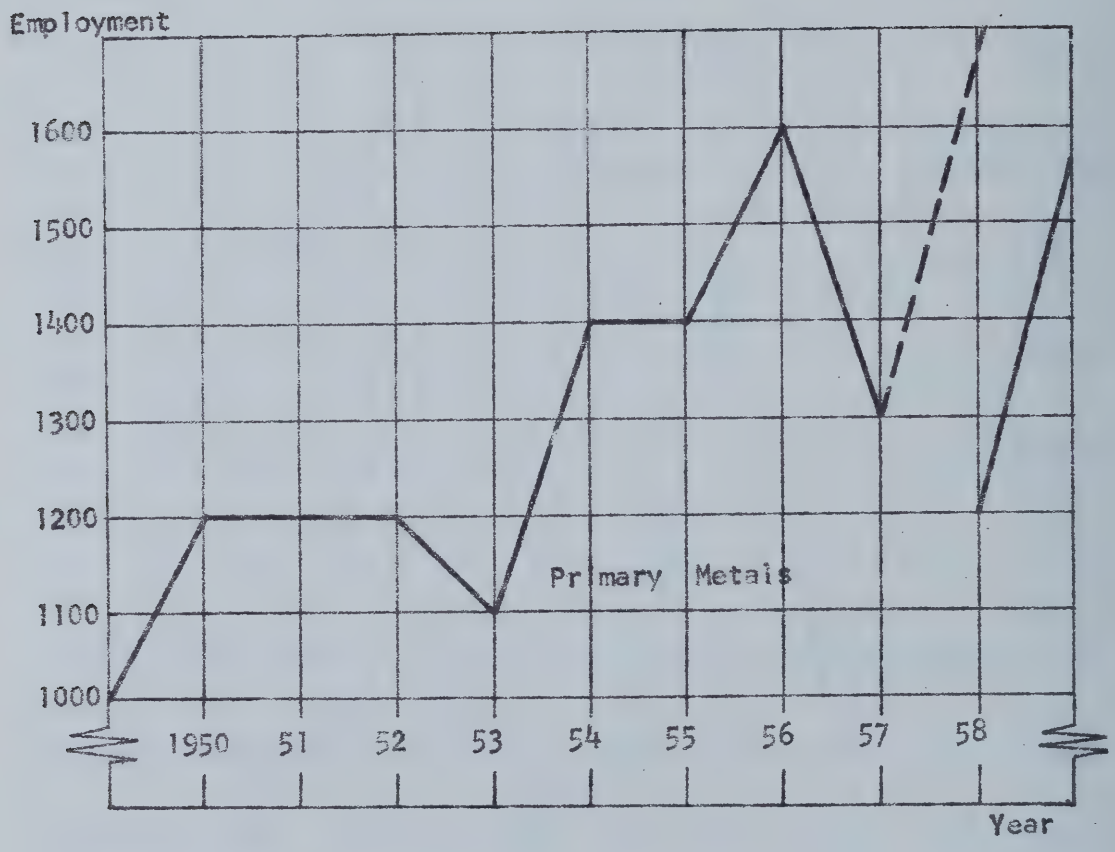
EMPLOYMENT, FABRICATED METAL PRODUCTS
CALHOUN COUNTY 1950-1959



Source: MESC

CHART 15

EMPLOYMENT, PRIMARY METALS,
CALHOUN COUNTY 1950-59



Source: MESC

of these categories, as far as employment is concerned. Going back to the overall analysis, the first feature points up the affect of cyclical variations on the economy; the second points up the structural trend away from manufacturing employment in the economy.

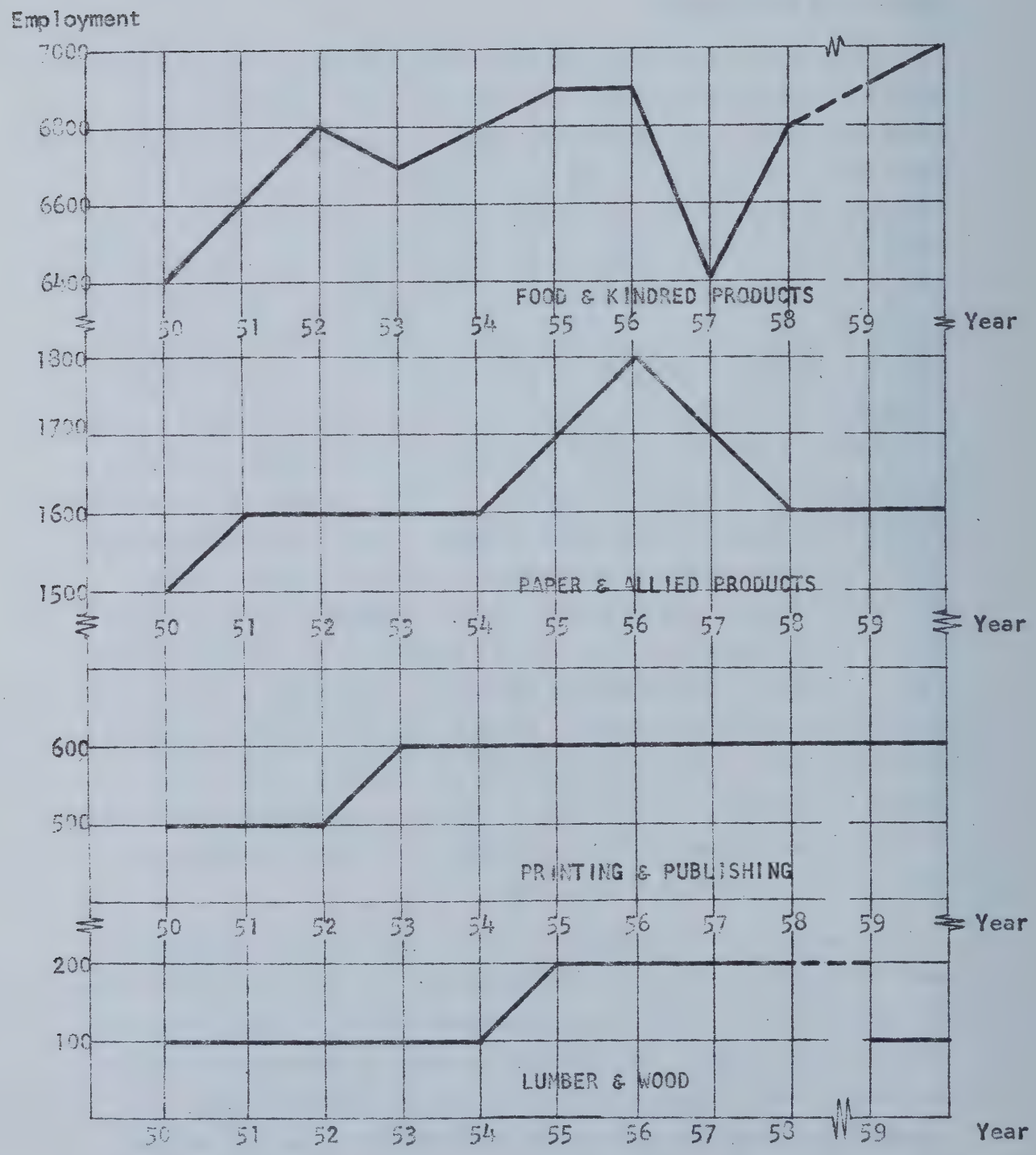
Nondurable Goods Sector

Now let us examine employment history of the nondurable goods sector of manufacturing over the last ten years as presented in Chart 16. First, the nondurable sector is completely dominated by the food and kindred products category. This is the largest single industry in the county and employs about 15 per cent of the total labor force. It also accounts for about 1/3 of total manufacturing and 2/3 of nondurable goods manufacturing employment. The other categories of nondurable employment include about 1,600 in the paper products industry, which is closely related to the food products industry, 600 in chemicals and about 100 in lumber and wood products. Two trends in nondurable goods employment are noticeable. First, is the lack of cyclical fluctuation in these industries, especially as compared to the durable goods sector. Second, and unfortunately, we find in the nondurable goods sector no upward growth trends. The lack of upward growth trends in the nondurable sector can be traced to two causes. First, the food industry in Battle Creek is highly automatic and capable of increasing production considerably without increasing employment. Second, the food product industry is not typically a high growth potential industry. This is because as incomes increase people tend to spend smaller proportions of that income on agricultural products and larger percentages of income on other manufactured goods.

To summarize our findings about the relationship of unemployment and manufacturing, we have found that the cyclical fluctuations are largely in the durable manufacturing sector and that structural changes in the economy are somewhat evident in the failure of both the durable and nondurable sectors of manufacturering to grow substantially over the past decade. Furthermore, we can now see

CHART 16

NON DURABLE MANUFACTURE: CALHOUN COUNTY--1950-59



Source: MESC

why the unemployment picture of Calhoun County has become worse in the last few years, and why Calhoun County is now in the same situation as most of the metropolitan areas in the state (instead of being substantially better off as in the past). In the past, a high rate of growth in manufacturing employment (a compound annual growth rate 4.3 per cent per year over the period 1934 to 1954, compared to 3.2 per cent for the state of Michigan, and 3.4 per cent for the United States), coupled with a large proportion of manufacturing in nondurable goods has kept unemployment in Calhoun County at a comparatively low level. However, since the end of the Korean War in 1953, the manufacturing sector of the economy, caught in structural trends and cyclical fluctuations, has failed to expand. In the past, cyclical fluctuation in the durable goods sector of manufacturing have been dampened by expansion of the nondurable goods sector. However, since 1955, the performance of nondurable goods sector has been somewhat irregular. This sector has failed to provide the accustomed buffer against unemployment. In fact, employment in nondurable goods sector in 1959 was equal to that in 1955 and only 300 higher than in the 1952 level.

Local Manufacturing Economies

Through the use of Censuses Manufactures data for 1954 let us take a closer look at the contributions of each manufacturing industry to total manufacturing in the county and to the various cities in the county. In Table 17, we have recorded the 1954 census of manufacturers data for Calhoun County. In Table 18, we converted this data into percentage contribution of each industry to these various totals. This shows clearly the dominance of the food industry in the county. In 1954 this industry contributed 32.8 per cent of all employment in manufacturing in the county and 42.4 per cent of value added by manufacture. Value added by manufacture is arrived by subtracting the cost of raw materials, parts and components, supplies, fuels, purchases of electrical energy, and contract work from the value of shipments of manufacturing establishments. It therefore measures the contribution of manufacturing to the gross product. Its main components are wages and profits.

Table 16

Battle Creek Area, Manufacturing Employment 1950-1959

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1958_A	1959
Manufacturing Industry	19800	22900	24500	27300	22000	23200	23200	22700	21100	20500	21900
Lumber and wood products	100	100	100	100	100	200	200	200	200	100	100
Furniture and fixtures											
Primary metals	1000	1200	1200	1200	1100	1400	1400	1600	1300	1200	1600
Fabricated metals	3100	3200	3100	4000	3000	2900	2700	2400	2100	2300	2400
Machinery	3400	4200	4300	4400	3500	3500	3700	4000	3300	5300	5600
Electrical Machinery	600	1000	1200	1600	1100	1500	1400	1100	1200	1000	1300
Transportation Equipment	2900	4200	5400	6800	3900	4200	4200	4400	3700	1100	1300
(Motor Vehicles)	(2200)	(3400)	(3800)	(4000)	(2300)	(3200)	(3200)	(3200)	(2800)	(300)	(600)
Other Durable Goods*	200	200	200	200	200	200	200	200	200	200	200
Durable Goods	11300	14100	15500	18300	12900	13900	13800	13900	12000	11400	12500
Food and Kindred Products	6400	6600	6800	6700	6800	6900	6900	6400	6800	6900	7000
Paper and Allied Products	1500	1600	1600	1600	1600	1700	1800	1700	1600	1600	1600
Printing and Publishing	500	500	500	600	600	600	600	600	600	600	600
Chemicals, Petrol & Coal	100	100	100	100	100	100	100	100	100	100	100
Non Durable Goods	8500	8800	9000	9000	9100	9300	9400	8800	9100	9100	9300

* Includes Ordinance; stone, clay and glass products; instruments and miscellaneous

Source: MESC

Table 17

Manufacturing Statistics Calhoun County, 1954

	Establishments	All Employees		Production Workers		(000)	(000)
		No.	Payroll (000)	No.	Wages (000)	Value Added	Capital Expenditures
All Industries	197	21,102	94,073	16,236	67,824	239,018	7,641
Food & Kindred Products	49	6,925	30,575	5,352	22,222	101,427	3,289
Lumber & Wood Products	12	131	418	106	336	643	37
Pulp, Paper & Products	8	1,693	7,651	1,435	6,103	19,839	489
Printing & Publishing	30	566	2,512	362	1,583	3,934	205
Chemicals & Products	5	110	485	85	367	1,195	17
Primary Metals	9	1,192	5,118	994	3,832	7,370	700
Fabricated Metals	21	2,171	9,135	1,699	6,511	14,242	556
Machinery	23	5,437	25,536	4,227	19,154	44,864	1,702
Transportation Equipment	6	1,818	8,663	1,059	4,462	24,961	441
Miscellaneous	6	117	334	102	250	409	1

Source: Census of Manufactures, 1954

Table 18

Calhoun County 1954

Per Cent of Industry Contribution to

Total Manufacturing

1954 Industry	Establish-ments	Employees	Payroll	Man-Hours	Value Added	Capitol Expenditure
All	100.0	100.0	100.0	100.0	100.0	100.0
Food	24.9	32.8	32.5	32.6	42.4	43.0
Lumber	6.1	0.6	0.4	0.7	0.3	0.5
Paper	4.1	8.0	8.1	8.9	8.3	6.4
Printing	15.2	2.7	2.7	2.7	1.6	2.7
Chemicals	2.5	0.5	0.5	0.5	0.5	0.2
Primary Metals	4.6	5.6	5.4	5.8	3.1	9.1
Fabricated Metals	10.7	10.3	9.7	10.6	6.0	7.3
Machinery	11.7	25.8	27.1	26.4	32.3	22.3
Transportation equipment	3.0	8.6	9.2	6.4	17.9	5.8
Miscellaneous	3.0	0.6	0.4	0.6	0.3	--
Other	14.2	4.5	3.9	5.1	15.1	2.7

In the period 1939 through 1954 the growth rate of manufacturing in Calhoun County measured by either employment, wages, or value added has been very high. Table 19, compares the growth rate over the 15-year-period for the county, state, and United States. In all three categories the growth rate of Calhoun County exceeds both state and national figures. Detailed statistics for the 1958 Census of Manufacturers are not yet available, however, the decline in manufacturing for the county between 1954 and 1958 was considerably less than the decline for the state (.7 per cent for the county compared to 12 per cent for the state). It must be remembered, however, that both the years 1954 and 1958 were high unemployment years in Calhoun County.

In Table 20, the changes in employment and value added for some industries in the state between 1954 and 1958 is reported. These industries were selected on the basis of their relevance to Calhoun County. The picture is not at all encouraging. Most industries have large declines in employment, only the food industry shows any increase. However, value added has increased in some cases where employment has decreased; and, even where employment has decreased greatly, the decline in value added has not been proportionate. This is probably due to rigid wages and maintained profits with high productivity per worker. This is symptomatic of automation.

The last problem remaining is to attempt to assign the manufacturing activities in the county to the various centers of manufacturing to examine their manufacturing industries. Unfortunately, since the city of Marshall has less than 10,000 population, manufacturing statistics for the city are scarce.

The dominance of Battle Creek area in manufacturing picture of Calhoun County area is clear from Table 21. In the two crucial variables, employment, and value added, Battle Creek had 59.0 per cent and 68.6 per cent of the county totals respectively. Furthermore, Battle Creek establishments have, on the average, more employees, higher wages per employee, and higher value added per worker (Table

Table 19

Comparative Growth Rates-- Manufacturing

Calhoun County, Michigan and United States, 1939-54

	County	State	United States
Employment	4.3%	3.2%	3.4%
Real Wages	9.7	8.2	8.5
Real Value Added	6.7	5.4	5.2

Source: Census of Manufactures 1939 and 1954

Table 20

Change in Manufacturing

Employment and Value Added

by Industry, Michigan, 1954-1958

Industry	% Change in Employment	% Change in Value Added
Food	+ 0.8	+22.3
Lumber	-23.2	-14.0
Paper	- 7.8	- 1.5
Printing	+ 2.9	+15.0
Chemicals	- 5.2	+21.3
Primary Metal	-14.9	- 5.7
Fabricated Metal	-18.6	- 8.4
Machinery	-15.4	-12.4
Electrical Machinery	- 8.7	+20.3
Transportation equipment	-30.9	-12.0

Source: Census of Manufacture of United States 1954 and 1958 (Preliminary)

Table 21

Per Cent of Manufacturing in Calhoun County, in Albion and Battle Creek, 1954

	County	Albion	Battle Creek	Other
Establishments	100.0	11.1	44.7	44.1
Employees	100.0	11.7	59.0	29.2
Payroll	100.0	11.1	59.7	29.2
Manhours	100.0	12.4	57.3	30.3
Value Added	100.0	12.6	68.6	18.6
Capital Expenditure	100.0	10.7	59.0	30.2

Table 22

Comparative Manufacturing Statistics Calhoun County, Albion, Battle Creek and Remainder of County, 1954

	County	Albion	Battle Creek	Peninsula
Wage/Employee	$4177	3873	4239	4188
Employers/Establishment	107	112	142	71
Value Added/Worker	$14721	14953	17582	9124
Employees/Population X 100	17.5	23.8	25.6	10.0

In order to get a more concrete picture of the manufacturing economy of areas within the county we have used the 1950 Census of Population data presented in Table 23. Unfortunately, the census does not present a breakdown for Marshall.

In order to facilitate investigation of the manufacturing structure of Albion and Battle Creek, Table 24 has been constructed which compares the percentage of manufacturing employment by industry for the county, Albion and Battle Creek. The outstanding feature of manufacturing in Albion is high concentration in the durable goods industries. About 92 per cent of manufacturing employment in Albion is durable goods. Manufacturing is heavily specialized in primary metals, especially iron castings. There is also heavy employment in fabricated metals and machinery. In 1950, 62 per cent of the workers in the primary metals industry in the county resided in Albion.

Battle Creek has considerably more employment in nondurable than durable goods. The census reported that 44 per cent of the employees living within Battle Creek were employed in the food industry alone. This represented about 54 per cent of the total employment in this industry in the county. However, since there is very little production of food in the other locations, the Battle Creek area must account for a far larger proportion than the Census of Population indicates. The percentage of the labor force engaged in manufacturing food products underestimates the importance of this industry in still another sense. The printing and paper industries are largely ancillary to the cereal industry. Employment in the durable goods sector of Battle Creek is concentrated in machinery (agricultural machinery, pumping equipment, industrial trucks, fire equipment) fabricated metal products (by wire products, brass and copper goods, and metal stampings), and transportation equipment (aircraft parts).

The only picture we can get of manufacturing in Marshall is from an ennumeration of the major manufacturing establishments in Marshall and the products they manufacture. This along with

Table 23

Manufacturing Employees

Calhoun County, Albion and

Battle Creek, 1950

	County	Albion	Battle Creek	Other
Manufacture	17,495	1,555	7,748	8,192
Furniture, Lumber & Wood	172	20	29	123
Primary metal	1,044	647	85	312
Fabricated metal	2,425	430	885	1,110
Machinery	3,748	253	1,596	1,899
Electrical Machinery	145	9	54	82
Motor Vehicles	1,317	45	560	712
Transportation Equipment	41	7	13	21
Other Durable	267	14	119	134
Foods	6,346	33	3,406	2,907
Textile	27	1	7	19
Apparel	18	2	8	8
Printing	687	58	338	291
Chemicals	127	5	63	59
Other Non-Durable	1,011	12	562	437
Not Specified	110	19	23	68

Source: Census of Population, 1950

Table 24

Percentage of Manufacturing Employment by Industry, U. S., County, Albion & Battle Creek, 1950

Manufacture	United States	County	Albion	Battle Creek	Remainde
Furniture & Wood	2.5	1.0	1.3	0.3	1.5
Primary metal	8.0	5.4	41.6	1.1	3.9
Fabricated metal	6.5	13.9	27.7	11.4	13.5
Machinery	9.0	21.6	16.3	20.6	23.2
Electrical Machinery	5.8	0.9	0.6	0.6	1.0
Transportation Equipment	8.4	7.9	3.5	7.4	9.0
Other Durable	13.8	1.5	0.9	1.5	4.6
Foods	10.1	36.4	2.1	44.0	35.5
Textile	8.6	0.2	0.0	0.0	0.2
Apparel	7.9	0.1	0.0	0.	0.1
Printing & Paper	4.9	3.9	3.7	4.7	3.6
Chemicals	4.6	0.7	0.3	0.8	0.7
Other & Not Specified	7.9	6.4	2.0	7.6	6.1
Total	100.0	100.0	100.0	100.0	100.0
Durable	56.0	52.4	91.9	42.9	55.8
Non-durable	44.0	47.6	8.1	57.1	46.2

Table 25

Some Manufacturing Establishments and Products,
Calhoun County Areas, 1959

Albion	
Albion Malleable Iron	casting
Corning Glass Works	t.v. tubes
Gale Manufacturing	castings
McGraw Edison	heaters
Union Steel	wire products
Decker Nut	Screw machine parts
Battle Creek	
American Marsh Pumps	fire equipment
American Stamping	stampings
Battle Creek Packaging Machinery	bread packaging equipment
General Foods Carton and Container	packaging material
Clark Equipment, Truck Division	industrial trucks
Eaton Manufacturing--Aircraft Division	jet engine blades
Valve Division	valves
Interchemical Corporation	printing ink
Kellogg Company	food, cereals
Michigan Carton Company	paper cartons
Oliver Corporation	agricultural machinery
Post Cereals Division, General Foods	cereals and food
Ralston Purina Corporation	foods, cereals
Rich Manufacturing Corporation	auto parts
H. B. Sherman Manufacturing	brass goods, copper
Sullivan Milk Products	ice cream
Union Steam Pump	pumping equipment
United States Register	registers, grills
United Steel and Wire	wire products
Weston Biscuits	crackers
Marshall	
Brooks Appliance	orthopedic appliances
Crowell Carton Company (St. Regis)	cartons, boxes
Eaton Manufacturing--Pumps Division	pumps
Engineering Castings	castings
Ronan Kunzl Inc.	water heaters
Shirer Gillett Company	commercial refrigerators
Muskegon Motor Specialities	ventilating equipment

Source: Michigan Manufacturers Directory

Table 26

Growth Industries & Growth Products
In Manufacturing, U.S.

Industry or Product	Increase in Value of Shipments, 1947-1954
Electrical Machinery	
Electrical Industrial Apparatus	146 %
Electronic Tubes	470
T.V. Picture Tubes	2900
Electrical Fans	36
Fabricated Metals	
Furniture Caster	112
Cast from Furnaces	222
Industrial Convictors	85
Residential Gas Burners	346
Special Fastners	147
Aviation Job Stampings	246
Machinery	
Blowers and Fans	86
Special Dies & Tools	109
Industrial Farm Accessories	110
Industrial Patterns & Molds	178
Furnace & Light Weight Blowers	123
Industrial Fans	116
Precasting Dies	228
Gigs & Fixtures	168
Transportation Equipment	
Aircraft Engine Parts	1700
Attachments for Farm Transp. Equip.	147
Fire Department Vehicles	142
Food Products	
Flour Mix	325
Food Preparations	105
Cereal Breakfast Foods	84
Stone Clay & Glass	
Television Blanks	281
Chemicals	
Printing Inks (container)	105
Refill Ink Cartridges	145
Pulp & Paper	
Paperboard Boxes	48
Printing & Publishing	
Lithographing	97
Commercial Tables & Wrappers	435

Source: U.S. Department of Commerce, Industry Trend Series

the distribution of employment in the remainder of the county gives us some clue as to the manufacturing structure. Manufacturing in Marshall is concentrated in machinery (pumps, refrigerators, and ventilating equipment), primary metals (especially castings) paper, and apparel. Marshall's manufacturing is more balanced between durable and nondurable goods than Albion's and less balanced than Battle Creek's.

The balance between durable and nondurable goods is, to a large extent, the determinant of how severely a locality will be affected by fluctuations in the business cycle. On the basis of the durable and nondurable distribution as of 1950, Albion would be affected most severely by cyclical declines and Battle Creek City less severely. The effect on Marshall would be somewhere between the two.

The future growth in employment of present manufacturing industries depends on the particular industries located in the areas. Charts on index through dividing these categories into those in which the trend has been up, and those in which it has not, is relatively easy. In only three industries: pulp, paper and products; printing and publishing; and chemicals and products, has there been a steady upward trend. Two others, electrical machinery and fabricated metal products, have also shown upward trends, but are strongly influenced by cyclical variations and their performance has been irregular. Machinery, primary metals, and transportation equipment have been very irregular in their performance over past decades. However, employment trends in the three latter industries seem to be generally downward. The food and kindred products classification has been somewhat peculiar in its performance with a very sharp increase in 1954 and a very sharp decrease in 1958. However, from past performance, the trend in this industry is probably gradually upward. Less data is available for more detailed breakdown of industries however, it is possible to indicate some products, classified as growth products by the Department of Commerce, which are either manufactured in Calhoun County or are related to products manufactured in Calhoun County. One thing apparent from the length of this list is that there is great potential for growth in many industries of Calhoun County.

V. SERVICE INDUSTRIES

The service industries are those which are not involved in production of goods. Typically, service industries are engaged in internal trade, which involves sales of goods or services within the community. People obtain most of their services within the community in which they live, however, the goods which they buy are, in the main, not produced in that community.

From an economic standpoint, a community may be viewed as a productive unit that is in competition with other communities in the national and international market for goods and services. In these days of specialization and concentration of labor and capital, no one community can produce all the goods and services that it requires. The goods and services which a community does not, or cannot, produce itself must be imported from other communities. In order to pay for the imports of goods and services, a sommunity must also export. Goods and services exported from a community to the world outside bring additional income that enlarges the purchasing power of the community so that it can purchase the goods and services that it does not produce. Production for export is the economic link between the local community and the rest of the world. The growth of the community depends mainly upon the growth of employment and income in those industries exporting goods and services beyond the economic barriers of the community. In the vast majority of communities, the export sector is composed of goods producing industries rather than service producing industries. And, in general, employment in the service producing industries is dependent upon employment in the goods producing industries (assuming that the goods producing industries are export industries and the service producing industries are not).

This is not to say that service producing industries cannot be export industries. They can, and quite often do, make a substantial contribution to the export economy of the region or community. A good example of this case is the Washington, D.C. area, which exports governmental services. However, communities generally do not exist by "taking in each others washing." And, it is a rare case indeed,

when a community finds most of its income generated in the service producing sectors. In many instances, however, service industries do make a vital contribution. It is on these instances that we shall concentrate. Otherwise, all we will do is indicate the broad trends in the service industries. General trends in service industries in the United States are presented in Chart 17.

Transportation, Communication, and Utilities

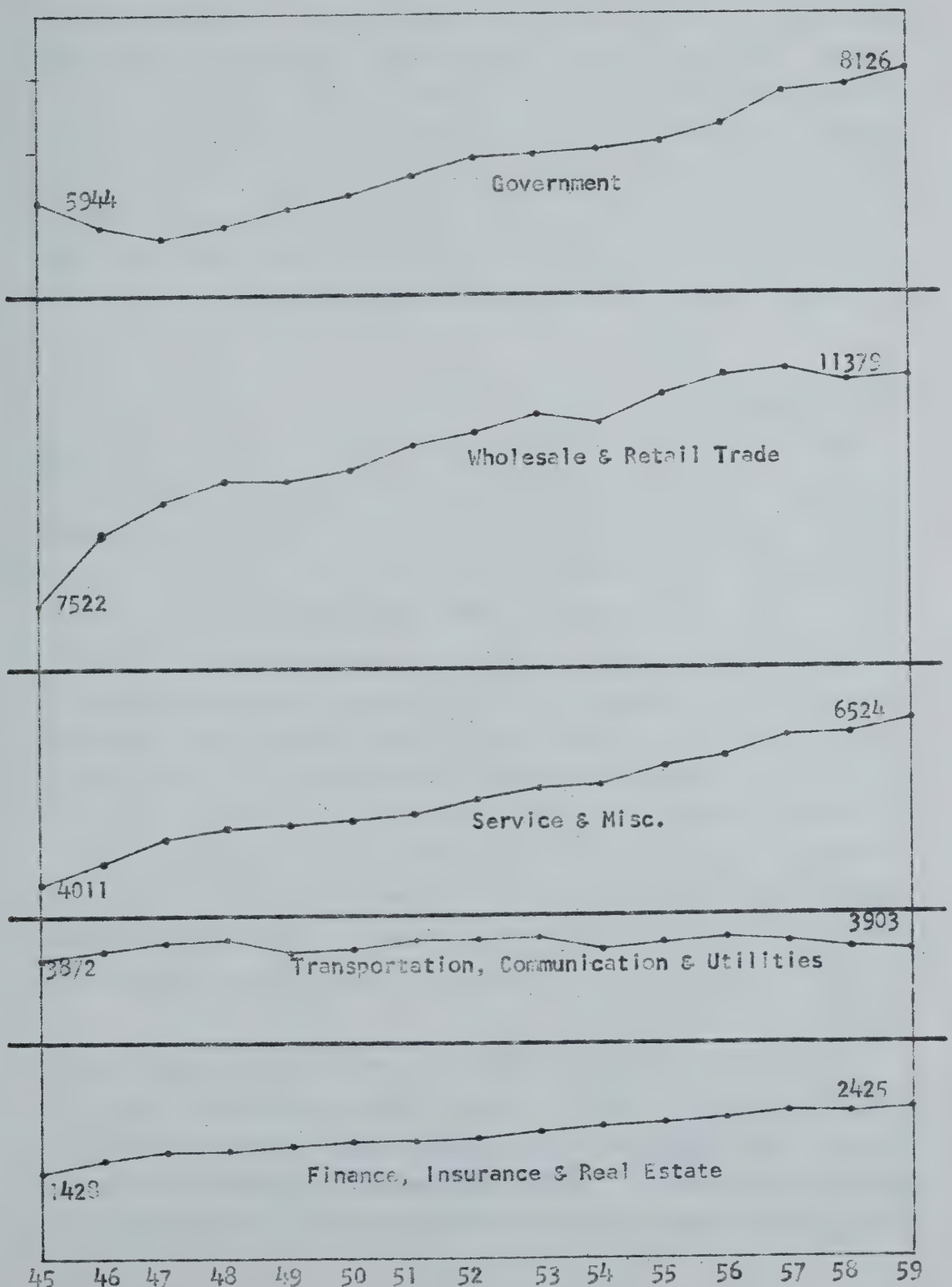
In 1959 this sector accounted for 5.7 per cent of total employment in Calhoun County. The trend of employment in this industry in Calhoun County, as well as Michigan and the United States, has been downward. The county had a somewhat smaller proportion of its labor force engaged in this industry than Michigan or the United States. Within the county, employment in this category is centered in Battle Creek. It is normal that service employment of most types be centered in a large city. This is the case in transportation, communication, and utilities. The large city usually has the area's television station, several radio stations, and the headquarters of utilities serving the area. Furthermore, the large city would normally have the regional airport and rail terminal and, also, would have a more highly developed internal transportation system.

Government

The statistics on governmental employment provided by the Michigan Employment Security Commission are somewhat confusing because of several changes made in the coverage of this category. In recent years this category has been englarged to include employees of public educational systems (previously classified in services) and then, later, to include Federal employees. It is, therefore, difficult to tell if there is any definite trend in this data. If, however, the national trend has been at all indicative of local activity, there has been a large increase in this category recently.

CHART 17

EMPLOYMENT IN SERVICE INDUSTRIES
U.S. 1945-1959



Source: Economic Report of the President, 1960

Both Battle Creek and Marshall have significant proportions of their labor force in the government category. Marshall, because it is the county seat, and Battle Creek, because of the high Federal employment (see Table 27). The largest Federal employer in Battle Creek was the Veterans Administration Hospital, employing over 1,200 people. Custer Air Force Station employs approximately 780 military personnel and 63 civilians. The office of Civil and Defense Mobilization's operational headquarters accounted for 700 workers. The large number of Federal employees insure that governmental employment in Battle Creek does not merely serve the people of Battle Creek but is exported to the rest of the nation. The Federal government is the second largest single employer in Battle Creek.

Wholesale Trade

For the sectors on wholesale trade, retail trade, and selected services, we will make use of Census of Business data, which is somewhat more accurate than the Michigan Employment Security Commission data for these categories. The ending date for this data is 1958 and the analysis will generally cover, the period 1948 to 1958.

Over the past decade, employment in nonmanufacturing industries has become more important in the total United States picture and wholesaling has had a roughly proportional growth. Over the period 1948-1958 the number of wholesale establishments in Michigan has risen by almost 25 per cent and sales have risen by almost 50 per cent. In Calhoun County the number of establishments has increased by 20 per cent, but sales by more than 75 per cent. The bulk of the increase in dollar value came in Battle Creek. However, the greatest percentage increases were in Marshall and the remainder of the county (Table 28).

In 1958 Battle Creek dominated the wholesaling picture in the county (Table 29). Marshall, however, had a substantial share of wholesale trade (greater than Albion) largely because of its geographical location. Michigan wholesaling is characterized by a high degree of concentration in the large firms employing more than

Table 27

Federal Employment, Battle Creek Area, 1960

Agency	Employment
Veterans Administration Hospital	1247
Office of Civilian and Defense Mobilization	771
Custer Air Force Base	743
Post-Offices	192
Fort Custer	59
Federal Aviation Agency	37
Social Security	14
General Services	24
Selective Service	2
Internal Revenue	7
Total	3087
Military Reserve	251

Table 28

Change in Wholesale Trade

Calhoun County 1948-1958

	Establishments	Sales	Employees
State	+24.4	+48.7	+15.9
County	+21.1	+75.9	+62.7
Albion	-22.0	-49.2	0
Battle Creek	+13.6	+63.3	+46.6
Marshall	+ 7.1	+112.8	+53.2
Remainder	+65.4	+150.6	+267.6

Source: Census of Business, 1958 (preliminary)

Table 29

Division of Wholesale Trade

Among Calhoun County Areas, 1958

	Establishments	Sales	Employees
County	100.0	100.0	100.0
Albion	4.2	2.4	2.2
Battle Creek	60.2	56.7	70.3
Marshall	9.0	11.4	10.1
Remainder	25.9	27.8	17.5

Source: Census of Business, 1958 (preliminary)

99 workers. These firms include only about 1 per cent of the establishments, but make over 16 per cent of the total sales. There is a marked tendency for wholesale trade to concentrate in major metropolitan centers. In 1958, 73 per cent of wholesale employment was in Detroit, Grand Rapids, Saginaw, and Lansing. And the share of these four cities has been increasing.

Comparing Calhoun County and Michigan, wholesale trade in 1958 (Table 29) we find that the county had fewer establishments per 100,000 population, lower real sales per establishment, fewer employees per establishment, and lower employee earnings per year. Marshall had the highest number of establish per 10,000 population in the county, and also had the highest real sales per establishment. Calhoun County, however, is not a wholesale trade center. This is probably due to the fact that it is within a triangle of which three large cities, Lansing, Jackson, and Kalamazoo are the vertices.

Retail Trade

Calhoun County is not what might be considered a retail trade center. Its real sales per capita, establishments per 10,000 population, sales per establishment, and employees per establishment is remarkably close to the average for the state (Table 31). Within the county, Battle Creek is undoubtedly the trading center. 63.6 per cent of all retail sales in the county are conducted within Battle Creek (Table 32). Furthermore, sale per establishment in Battle Creek are well above the county average. The trend in Calhoun County is recent years has been a decentralization of retail trade away from Battle Creek City. Over the decade 1948-1958 there was no increase in employment in retail trade in Battle Creek, and a smaller increase in sales than for Albion, Marshall, or the county (Table 33).

These statistics conceal vast changes which have occurred in retailing over the past decade due to increased population, geographical shifts, increasing incomes, new product development, and change in consumer tastes. For instance, although the number of retail

Table 30

Comparison: Calhoun County And Michigan Wholesale Trade, 1958

	State	County	Albion	Battle Creek	Marshall
Establishments Per 10000 Population	13	11	5	18	23
Real Sales Per Establishments (000)	904	464	269	445	598
Employees Per Establishment	10	9	4	10	10
Real Employee Earnings	4414	3687	3687	3791	3285

Source: Census of Business, 1958 (Preliminary).

Table 31

Comparison: Calhoun County and

Michigan Retail Trade, 1958

	State	County	Albion	Battle Creek	Marshall
Real Sales Per Capita	$924	$954	$1021	$1812	$1637
Establishments Per 10,000 Population	88	89	122	118	195
Real Sales Per Establishment	105	106	84	125	85
Employees Per Establishment	5	5	4	5	5

Source: Census of Business, 1958 (preliminary)

Table 32

Division of Retail

Trade Among Calhoun County Areas,

1958

	Establishments	Sales	Employees
County	100.0%	100.0	100.0
Albion	11.9	9.7	8.9
Battle Creek	52.3	63.6	63.5
Marshall	10.0	8.2	9.6
Remainder	25.7	18.5	18.0

Source: Census of Business, 1958 (preliminary)

Table 33

Change in Retail Trade

Calhoun County, 1948-58

	Establishments	Sales	Employees
County	-4.4%	+37.3	+8.6
Albion	+11.1	+42.6	+9.2
Battle Creek	-7.5	+32.6	0
Marshall	+2.3	+36.9	+16.1
Remainder	-8.5	+53.2	+48.0

Source: Census of Business, 1948 and 1958 (preliminary)

establishments in the state of Michigan rose moderately between 1939 and 1958 (only about 7 per cent), there was a drop by one-third of the number of food stores and a doubling of the number of furnishing and appliance stores. Due to the influence of the supermarket, food stores today have 8 times the sales, on the average, that they did in 1939. The percentage distribution of retail sales per store type has remained remarkably stable over the 20-year period. The major changes have been an increase in the percentage of expenditures on food and automotive at the expense of others.

Selected Services

Selected services is a more or less arbitrary division of the Standard Industrial Classification that includes only a part of total service industries. The business firms counted as selected services in the census fall into six main categories: hotels, motels, tourist courts and camps; personal services (such as laundries, barbar shops, and morturaries); business services (such as advertising, employment, and collection agencies); automobile reapir establishments; miscellaneous repair establishments (such as repair of electrical equipment and appliances); and the amusement and recreation places, including theatres. These selected services are a vital part of the service industries, and their total sales amounted to 6.7 per cent of the consumer spending in 1948, 9.9 per cent in 1954 and 11.8 per cent in 1958. In terms of sales these selected services now account for almost a third of consumers' spending on services, and they are growing more rapidly than the other service industries.

The largest group in terms of numbers in employment are the personal services. The most rapidly growing group, by any measurement, and the largest in terms of total sales, are the business services.

For five of the classifications, the percentage increase in the number of establishments was greater than the increase in the number of employees. This indicates that, for the industry as a whole, the average size of establishments is decreasing. The

Table 34

Kinds Of Selected Services And Their Growth From 1954 to 1958

	Number of Establishments			Receipts ($000)			Number of Employees		
	1954	1958	Percent Increase	1954	1958	Percent Increase	1954	1958	Percent Increase
Personal Services	13,072	15,577	19.6	262,605	307,578	17.1	33,648	37,367	11.1
Miscellaneous Repair Services	4,228	5,580	32.0	68,810	79,423	15.4	4,241	4,328	2.1
Auto Repair, Services, Garages	3,517	4,605	30.9	99,248	150,096	51.2	8,298	11,050	33.2
Miscellaneous Business Services	2,843	4,341	52.7	326,286	539,497	65.3	15,729	21,790	38.5
Amusements	3,294	3,854	17.0	165,003	154,853	-7.2	18,395	17,278	-6.1
Hotels, Motels, Etc.	2,745	3,650	33.0	93,649	109,426	16.8	12,472	14,744	18.2
Totals	29,699	37,607	26.6	1,015,601	1,340,873	32.0	92,783	106,557	14.8

Source: 1954 and 1958 Censuses of Business.

Table 35

Comparison: Selected Services, Calhoun County and Michigan, 1958

	State	County	Albion	Battle Creek	Marshall
Establishments Per 10,000 Population	52	43	54	59	71
Local Sales Per Establishment	30	21	16	26	14
Employees Per Establishments	29	29	19	39	13

Source: Census of Business 1958 (Preliminary)

selected services seem relatively unaffected by the widespread economic tendency toward concentration in fewer and larger units.

Comparing selected services in Calhoun County with Michigan in 1958 we find that the county has far fewer establishments per 100,000 population, lower sales per establishment, and about the same number of employees per establishment. Within the county Battle Creek has the largest establishments and a larger number of employees per establishment. Marshall, seems to be "over-serviced" with a very large number of establishments but with very low sales per establishment and few employees.

Battle Creek has 66.9 per cent of the total sales of the county and 73 per cent of the total employment in selected services.

The fact that Marshall is over-serviced is clear from the fact that over the decade from 1948 to 1958 there was a decline of almost 10 per cent of the number of service establishments in that city, a decrease of almost 20 per cent in employment. This was happening while employment in the county increased 45 per cent and sales increased 81 per cent. Percentage-wise, the greatest gain in selected services was in Albion (Table 36).

Selected services seems to be one area in Calhoun County where the growth has lagged far behind that of the state or nation. Any prediction intothe future of selected services in Michigan that is based on a continuation of past trends will designate this sector as one of the most promising prospects for growth. The output of these services in Michigan is still slightly below the national average, and the output in Calhoun County is well below Michigan averages. This is one sector of the economy where rapid growth in the next decade should be expected.

Conclusion

The growth of the service industries in Calhoun County has, generally, been lagging behind the growth in the state as a whole. Furthermore, growth in Michigan has been lagging behind national

Table 36

Change in Selected Services, Calhoun County, 1948-1958

	Establishments	Sales (000)	Employment
County	+10.6	+81.6	+45.0
Albion	+24.0	+114.7	+62.5
Battle Creek	+ 6.5	+ 61.3	+41.8
Marshall	- 9.8	+ 21.3	-19.1
Remainder	+22.2	+167.8	+84.2

Source: Census of Business 1948 and 1958 (Preliminary).

growth trends. Both Michigan and Calhoun County have considerably lower proportions of their labor force engaged in these industries than does the nation. This is especially true in wholesale trade, retail trade, and selected services. It is not true for Calhoun County in government. Insofar as wholesale trade is concerned, the major factor in influencing growth is geographic location, especially with regard to transportation facilities. Unfortunately, neither Michigan nor Calhoun County are ideally located for wholesale trade centers. However, given present trends in population growth and patterns of expenditures, it can be expected that there will be a great increase in the selected services sphere.

VI. THE PROBLEM RESTATED AND ITS SOLUTION

The problem of Calhoun County has been, basically, a high level of unemployment in its labor force since 1954, and more particularly, in the last few years. We have previously discussed the two main sets of economic forces operating in this problem. The first set is the cyclical fluctuations in the American economy since the Korean War. These periodic recessions have caused heavy unemployment in the durable goods sector of the Calhoun County economy. Furthermore, we have discussed now a favorable industry mix within the county, that is, a high ratio of nondurable to durable goods manufacture has minimized the effect of cyclical fluctuations. We then discussed the influence of the failure of the nondurable sector to grow on the industry mix and how this influenced increasing severity of the unemployment problem.

Involved in the unemployment problem are, also, a set of structural or technological forces. The major technicalforce in operation has been automation. In recent years, there has been a large growth on the output of manufacturing industry coupled with a very slow growth or even decline in employment. This trend has been particularly evident in the automobile industry. However, it is also present in the processed foods industry. The growth of employment in this sector of Calhoun County, especially since 1955, has been slow.

Another structural factor has been the recent rend toward decentralization of industry. Because of the rapid growth of population and income in other sections of the economy, plants which were previously located in Michigan have moved closer to their markets; and, companies establishing new operations because their old plants have passed optimum size or become obsolete have been locating these plants nearer their markets to obtain savings in transportation cost.

Still another unfavorable trend in manufacturing economy of Calhoun County has been in the changing pattern of demand for manufactured goods. As income grows, a small portion of that income is spent for goods and a larger proportion for services (see Chart 18). Thus, employment in a manufacturing sector would not be expected to grow as rapidly as employment in a service sector. However, Calhoun County is primarily a manufacturing center. Furthermore, there has been a lag in growth in the service sector in Calhoun County as compared with the state of Michigan or the nation. This lag has generally been the result of locational (geographic) factors.

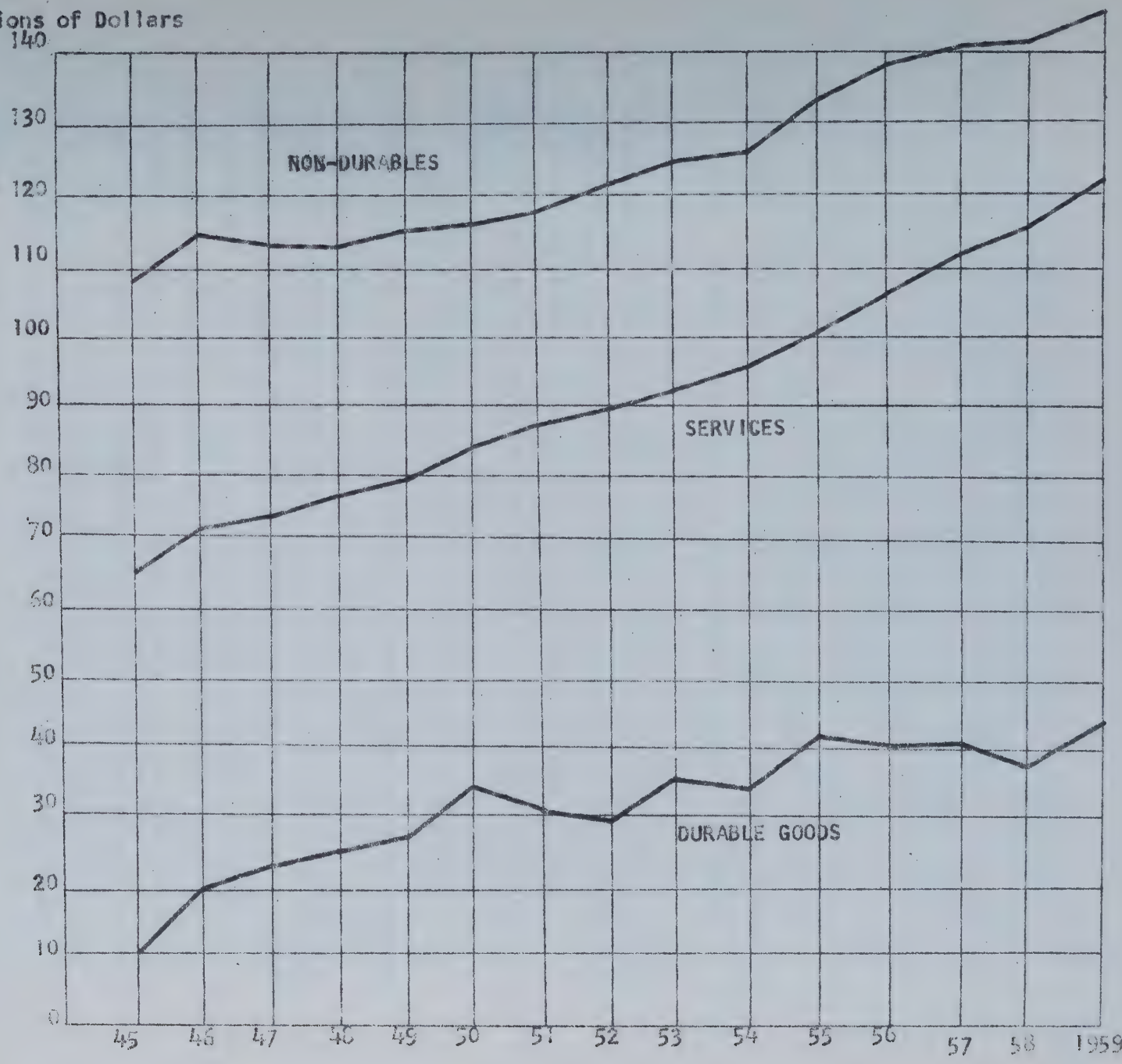
The last structural trend contributing to the unemployment problem of the county is the decline of agricultural employment. Falling incomes and declining employment in agricultura, coupled with declining nonfarm opportunities for those who would leave farming, both prevents incomes in the farming sector from rising and presents a serious source of unemployment for the nonagricultural sector of the economy.

Still another factor must be considered in the unemployment problem. This is population growth. The natural growth of population provides an automatic increase in the labor force every year. Unless employment opportunities in the region are growing, the increase in population will result in unemployment. It is, therefore, not enough for a community to provide jobs for those who are presently unemployed. It must provide growing employment to care for those who are coming on to the labor force annually. If jobs are not available, the community faces a dual problem. First, it will

CHART 18

Personal Consumption Expenditures--United States 1945-1959

Source: Economic Report of the President 1960



have continuous unemployment at a relatively high level, and second, it will have a high outmigration rate and, therefore, a slow population growth.

Calhoun County has a somewhat unique population problem. During the Korean War years, 1950-1953, tremendous gains were made in manufacturing employment in the County. In 1953, there were almost 7,500 more manufacturing jobs than in 1950. Since Calhoun County had a relatively small amount of unemployment in 1949 and 1950, much of the increased employment had to be made up in increases in the labor force. Over those few years, the Battle Creek area's labor force increased by almost 10,000. This means that there was tremendous in-migration during that period. Since 1954, however, employment opportunities in the County have not been plentiful. However, many of the migrants of the 1950-1953 period are still in the county, thus intensifying the unemployment problem. Now that job opportunities are not so plentiful in Calhoun County, they cannot leave for there is no place that they can be reabsorbed given the present conditions of the American economy.

The problems of Calhoun County are, as we have seen, complex. Furthermore, they are not unique to Calhoun County. The general trends and forces which influence industry throughout the United States influence industry in Calhoun County. The effect of national business cycles are felt in the county. Trends in income and population growth in other parts of the country influence economic conditions of Calhoun County. The precise resultant of these forces depends upon the particular structure of the local economy. In the past, Calhoun County has been fortunate in that its particular structure has mitigated the otherwise depressing forces in the economy. However, the economy in any region is bound to change: Factors which have made Calhoun County's economy fairly stable in the past have either changed or are no longer of great enough influence. So today, Calhoun County counts itself among the multitude of other regions and cities in the United States with serious employment problems.

Local Solutions

The problem then, is unemployment. Solutions to the problem of unemployment can take two courses. The first involves provision of more jobs, mainly through aid to local industry and expansion and attraction of new industry. The second involves programs expediting out-migration. There is serious doubt that large-scale problems directly aimed at the latter goal can gain political support. Local businessmen see trade declining and cheap labor becoming less plentiful. Politicians see losses of voters. Local tax bases, already inadequate decline without migration. Furthermore, in the present condition of the state of the national economy, there is no place for these people to go. However, there is one step in increasing the feasibility of out-migration which is always beneficial to the community. This involves an emphasis upon general and vocational education. Developing through education innate abilities of people in the area will facilitate voluntary adjustment resources within the economy. Furthermore, strengthening the educational program of the local area will make it more attractive for future development.

There is some debate on the part of economists as to how much a community can accomplish in improving employment opportunities. Harvey Perloff of Resources for the Future has pointed out that there are over 14,000 agencies concerned with area development in one way or another; also there are a number of Federal and state programs concerned with depressed regions and certain other disadvantage groups. He feels that while some very effective things have been done and are being done, taken as a whole, the results so far have not been very impressive. He feels that the attempts have been too little, disorganized, and often misdirected.

On the other hand, Victor Roterus of the Office of Area Development feels that most of the progress that has been made has been clearly on the initiative of the people in those communities themselves. Capital has been raised to stimulate new manufacturing industries and to encourage economic growth. County governments

have cooperated actively with private industrial and economic development organizations in aggressive and intelligent programs. In order to attract the manufacturer who wants to expand in a hurry, many communities have constructed speculative or "shell" factory buildings which are shown a prospective manufacturer and finished to meet his specifications in a matter of weeks. Even the state governments have chipped in. Pennsylvania, for example, has a loan program for the distressed areas in its state under which in the last three years over $12 million of seed money has stimulated factory construction projects costing over $30 million, resulting in some 20,000 factory jobs. Similar financial schemes have been adopted in other states with distressed areas. Roterus emphasizes that it is the local effort, which by far, counts for the most.

Which view is correct is difficult to say. Certainly there have been many efforts at industrial development in this country. Some have succeeded and some have failed. The list of those that failed is probably far longer than that of those that have succeeded. However, there is always the tendency for great publicity in those cases which have met with success. This tendency gives us a distorted picture, perhaps, of the results of individual community effort. On the whole, if the community has the potential for future growth from the standpoint of economics of location, the promotion of the industrial development may act to accelerate growth. If the potential is not there, then community efforts will largely be wasted.

Economic potential of the community or region depends upon three factors of outstanding importance: markets, manpower, and materials. Business firms, or the vast majority of them, act in very rational manner in selection of plant locations. The three major factors which they must consider are the proximity to markets, favorability of the labor situation, and proximity to materials. Which of the factors will be most significant in attracting manufacturing plants depends on the industry. For instance, metal manufacturers are oriented primarily toward their markets in mid-western industrial centers. For the chemical industry in Michigan,

access to material--salt, limestone, gypsum and water--is important. The furniture industry, on the other hand, found Michigan's skilled labor supply the greatest asset (Table 37). How a community goes about attracting a new industry depends on what the community can afford to do and what it has to offer. Thus, the first step a community must take is determine (1) what that community has that industry wants, and (2) which industries are best fitted to community advantages and needs.

Securing new industry is not an easy task. Competition among states and cities is keen. Throughout the United States, there are thousands of communities that have some form of organized industrial development program. Promoting industrial development is an activity in which many Michigan communities have become heavily involved. Two hundred and seventy-five communities throughout the state are making organized efforts of one sort or another to attract industry. However, an industrial plant should locate where it can be most productive, not where the most desperate give-away program is underway. Industries, to remain competitive, must generally be well located in regard to all their in-puts, as well as with regard to market. When experts locate a plant, they consider present and future raw material costs at the site, present and future wage rates, and the growth of the market to be served by the plant. Every community is "a good place to work and a good place to live" but it takes more than this to attract a plant to a community.

Basically, there are three methods which are generally used for increasing payrolls of communities. First, aiding new industries in establishing facilities in the community. Second, assisting established industries to expand their activities and consequently, their payrolls; and third, getting entirely new local venture enterprises on their feet.

The most common bait in attracting new industries is some type of financial inducement. This may take several forms: 1) the provision of suitable sites at low cost or no cost at all, 2) provision of the utility extension and access roads, or railroad

Table 37

Basic Orientation Of Manufacturing Plants In Michigan (% Of Employment)

Orientation	Metal	Furniture	Chemical	Other	All Manufacturing
Markets	44	20	34	61	47
Materials	9	13	51	5	11
Market & Materials	22	10	2	16	18
Labor & Other	11	40	11	17	14
Not Ascertained	14	17	2	1	10
Total	100	100	100	100	100

Source: Industrial Mobility In Michigan, A Sample Survey of Michigan Manufacturers, Survey Research Center, University of Michigan, 1950. p. 73.

sidings to its selected site at no cost, 3) provision of equipment on a rental basis, 4) provision of buildings at low rental with or without option to buy, 5) purchase of stock in a company that proposes to establish, 6) direct loans to prospective industry, 7) special tax treatment.

Leonard Yaseen of the Fantus Factory Locating Service recommends that construction of a modern factory building to the general requirements of the industry at reasonable rentals plus a lower tax base on machinery and equipment is the limit to which most cities should go in financial inducement. However, I think it is necessary to point out two major considerations which should be remembered in any industrial development program: One, if people are to give part of their income to a project designed to create more income, compelling evidence must show that the chance of survival is worth the sacrifice. Two, when one group is asked to make sacrifices out of proportion to others, or when benefits do not accrue uniformly, hostility develops.

Area Redevelopment Bill

It was Senator Paul H. Douglas in 1955 who introduced the first bill to aid chronic labor surplus areas. Since then the basic purpose of the legislation has never varied; it is to create jobs in distrssed areas. The ingredients are essentially these:

(1) Self analysis. Only when it has a complete inventory of its resources can a community discuss its advantages with perspective and entrepreneur on a specific and factual basis. Therefore, the bill provides funds for studies by development organizations;

(2) Supply of capital. Lack of capital is a major obstacle to the recovery of labor surplus areas. Under the Douglas bill the Federal government would provide prospective employers with part of the needed long-term capital at low interest rates, the balance be furnished by state and local government sources, and by the entrenepreur himself;

(3) Public facilities. Distressed areas often lack facilities without which industry simply will not bite. The Douglas bill would provide for the creation of separate funds from which communities could obtain credit, or in extreme cases, grants, depending upon the ability of the community and the state to contribute;

(4) Training. In low income areas, industrial skills have never been developed. In some, the market for given skills has vanished. The Douglas bill would create Federal funds for allocation to chronic labor surplus areas for financing wider vocational and retraining.

In order to accomplish these things, the bill would provide for:

(a) A 300 million dollar loan fund. The government would loan the money to communities to expand their industries so as to attract new ones. No more than 90 million dollars could be loaned before July 1, 1962;

(b) 75 million dollars in grants to help communities supply the roads, water, utilities, and other public facilities needed by new works and added industries. This total figure would be fixed by a bill but Congress would appropriate more funds or grants from time to time;

(c) Ten million dollars a year to unemployed workers so they can maintain themselves while studying and developing new skills required by the new industries in their communities;

(d) 4.5 million dollars a year to depressed areas that need the money to plan programs to improve their economy.

There is much opposition to this bill. First, it is argued that aid from Washington would not result in the complex economic factors that create chronic labor surplus areas in the first place. On the contrary, it is argued, a Federal program that encourages people to remain in a community that has lost the economic base to support them, will not only fail to help these localities but will compound their social and economic difficulties. Second, the Douglas measure,

it has been argued, would encourage established industry in more prosperous communities to relocate in the areas favored by the legislation, in order to get "at the pork barrel."

Given the desperate plight of many depressed areas, however, and the limited effectiveness on local programs, something must be done to aid chronic labor surplus areas. Proponents of the Douglas bill find it desirable from a humanitarian point of view also. Furthermore, they point out economic recession has a snowballing effect: declining activity in one area spreads to other areas. As to the costs of rehabilitating depressed areas, it is claimed that they will be more than offset by decreasing expenditures for unemployment compensation and relief outlays, and by an increased tax base resulting from improved economic conditions. Assuming that the Douglas bill does become law, as seems likely there is some question as to what its effectiveness will be. First, there is a question as to whether the Battle Creek area will qualify as a labor surplus area under the provisions of the bill. As of October, 1960, there were three major areas of substantial unemployment (Detroit, Muskegon and the Upper Peninsula) in the state. Furthermore, in that month, Battle Creek ranked eighth among the thirteen labor market areas in the state as far as unemployment as a per cent of labor force is concerned.

The bill would provide for only 90 million dollars in loans during the first year and an expenditure of only 104 million dollars in laons and grants. Thirty million dollars of the total would be for public facilities, 30 million will be allocated to private investment in urban areas, and 30 million dollars for these projects in rural areas. An additional 10 million dollars will be available for grants for public facilities, and 4.5 million dollars for technical assistance in the redevelopment areas. Given the magnitude of the problem this is a paltry sum especially given the large number of areas which will be vying for the funds. Furthermore it is problematical whether many private businesses will locate in distressed areas even if large sums become available at low rates.

Furthermore in many of the distressed areas, there are plenty of unused facilities now, and until these come into use new ones are not likely to be built no matter how low interest rates fall.

There are many problems involved with the Douglas Bill. First, there is a question of whether it will pass. Second, there is the question of whether it is economically justifiable from the point of view of the economy as a whole. Third, there is the question as to whether the Battle Creek area will qualify under the provisions of the bill. Fourth, there is the question as to whether the appropriations now being considered will be sufficient to make a dent in the problem. Fifth, it is questionable whether low interest rates will bring forth an additional investment in the depressed areas. One thing the bill will surely accomplish. This is, that it will prove as a stimulus for local communities to take a more careful look at their problems and potential and thus allow governmental planning to go along on a more intelligent basis.

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GLADSTONE PLANNING STUDY

Field Report
No. 105

EXISTING LAND USE IN GLADSTONE

Prepared by
Calvin Schneider, Graduate Student
and
Richard D. Duke, Urban Planner

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

THE UNIVERSITY OF THE
DEC 1962
UNIVERSITY OF ILLINOIS

Existing Land Use
In
Gladstone

A Technical Report

To The

Steering Committee

(City Planning Commission)

Prepared by

Calvin Schneider, Graduate Assistant
and
Richard D. Duke, Urban Planner

March, 1961

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This study was dependent upon residents of the community securing the necessary raw material in Gladstone. Those who have contributed to this effort are to numerous to mention, but through these efforts the success of the undertaking was insured.

A special debt is owed to Mrs. Therese Kennedy who diligently pursued the compilation of the various data required for the McBee cards used in the survey

EXISTING LAND USE
IN
GLADSTONE, MICHIGAN

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EXISTING LAND USE IN GLADSTONE

INTRODUCTION

The major purpose of this study, as initially conceived, was to provide a basis of fact for the development of a comprehensive community development plan, which would, in time, serve as a guide for revising the various development control machanisms, including the zoning resolution.

A community must, periodically, take a good objective look at itself. This analysis must position the community in proper perspective in regard to past, current and future happenings; such analysis being a prerequisite to the formulation of long-range goals and a plan of action for achieving them. A program for the improvement of the community would consist of the following inter-related steps:

Survey and Analysis of Community: Including a survey of the present physical community, pointing out positive and negative features.

Determination of Goals and Objectives: Long-range goals and objectives must be formulated and then facilitated through annual or short-range programs.

Preparation of the Community Development Plan: The design and preparation of the "Master Plan" for the community is completed, reflecting the objectives of the community.

Implementation of the Development Plan: Carrying out the community development plan requires the revision and proper administration of all development codes and ordinances and for their compliance to those policies desired within the development plan.

Continuing Process: This stage involves those activities necessary to the fullfillment of the plan. The community of Gladstone has already initiated the community development program. A major portion of phase one, as noted above, has been completed with the submittal of this report. This survey of the physical community was completed through the joint efforts of the members of the Gladstone City Planning Commissions and the Institute for Community Development and Services.

REGIONAL SETTING

The city of Gladstone is located seven miles south of Escanaba, the county seat of Delta County. The major urbanized portions of Gladstone are situated on Saunders Point which jogs out from the western shore line of Delta County into Little Bay DeNoc. The escarpment which runs through Gladstone is the most pronounced geographic feature of the area.

The regional area that has influence upon the city of Gladstone could conceivably include the entire Upper Peninsula; because the tourist industry, which plays an important role in Gladstone, is influenced by its attraction.

Highway US-2 is one of the Upper Peninsula's major tourist routes, providing access from Gladstone to the Mackinaw Bridge and Sault Ste. Marie in the east; and to Escanaba, the county seat on the south. Further west, US-2 connects Gladstone with Iron Mountain, Crystal Falls, and other tourist locations. US-41 and M-35 act as north-south tourist routes connecting Gladstone with the "copper country" to the north and Wisconsin to the south.

Delta County harbors several prime attractions which helps to pull tourists into the Gladstone vicinity. The following factors contribute to the county's tourist attractions:

- Delta County is an excellent fishing and hunting area.
- Escanaba is the home of the Upper Peninsula State Fair.
- Escanaba is a busy Great Lake's port.
- Fayette State tourist park plus several county and city tourist parks.

GEOGRAPHY

The physical features of Gladstone were formed primarily during the same geological periods which molded the entire Michigan basin region. The following geologic history summarizes the building process of the entire Michigan basin, and discloses how this building process affected the present natural features of Gladstone and Delta County.

The geologic history of the Great Lakes region took place approximately during four major periods. The first epoch involved the earth's formation. A report printed by the Michigan Geological Survey Department summarized the early part of the period as follows:

> "In the beginning, the Great Lakes area was a basin-shaped lowland (now known as the Michigan Basin) of granitic rocks bordering a granitic highland known as the Canadian Shield, the core of the North American continent.
>
> "The rim of this basin can now be seen in the Huron Mountains of Marquette County. The time is known as Archean. No one is certain when it began, but it ended 1,050,000 years ago. It is believed, from studies of radio-activity, that the earth is some three billion years old."[1]

Action by a shallow sea which covered the peninsula and later volcanic movements caused a shift and tilting of some of the rock layers. The Porcupine Mountains are a typical example of this violent rock up-thrusts. These happenings concluded the first major formative period, ending nearly 550 million years ago.

From this time on, parts of the Michigan Basin slowly began to sink forming a definite bowl shaped basin. The outer rim of which is the north-westerly portion of Delta County.

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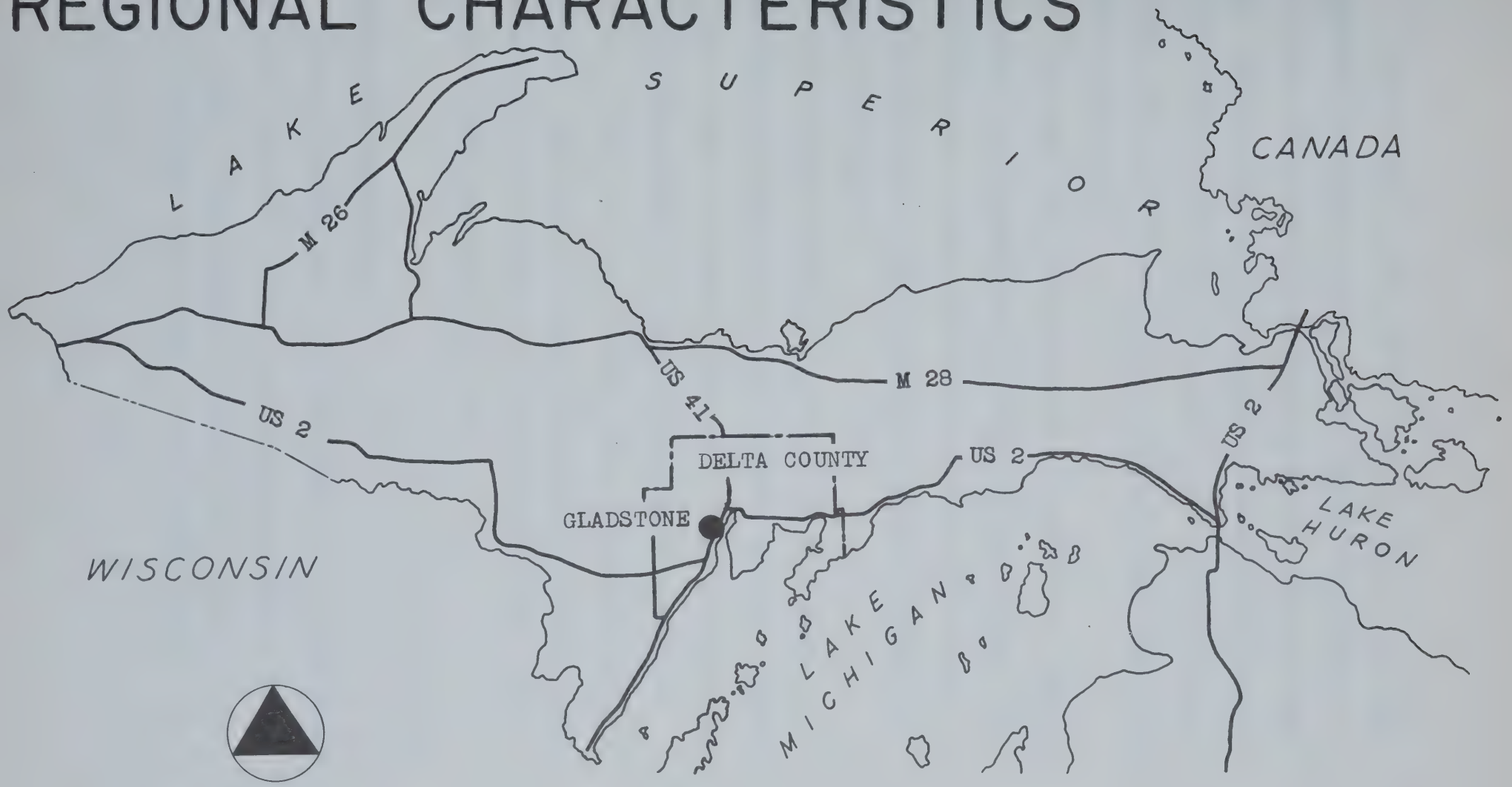
1 Helen M. Martin, Outline of the Geologic History of Michigan (Michigan Department of Conservation-Geological Survey Division, 1952) p. 2.

REGIONAL CHARACTERISTICS



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Undulations by six successive seas marks the next important formation period. This period is known as the Paleozoic epoch which ended about 220 million years ago. These successive seas each laid different layers of sedimentary bedrocks on top of the Pre-Cambrian rock surface of the Michigan Basin, each generally following the bowl pattern.

Following this epoch came a long period of weathering which was responsible for dredging and molding the Lake Michigan and Lake Huron basins, and which ended with the descend of the continental glacier nearly one million years ago.

The Glacier descended and retracted four time, and represents the ice epoch of the Basin's geologic history. As each of the ice sheets advanced southward, it picked up and transported soil and assorted rock materials with it. When these ice sheets retracted about 10,000 years ago, they deposited rock materials (glacial drift) over the bedrock formations. This glacial drift makes up much of the present soil types.

Physiography and Relief

Bedrock formations in Delta County are composed of limestone, dolomite, shale, sandstone and gypsum formations. Most of the county's bedrock west of Little Bay DeNoc is composed of limestone and dolomite which was

deposited over 400 million years ago. The irregular shoreline of Delta County can be traced to the difference in the erosion characteristics of the underlying bedrock formations.

The glacial and post-glacial periods had a significant impact upon the surface features of Delta County. The Wisconsin ice sheet, the last of the four sheets to pass over the Great Lakes region, left an array of glacial drift types as it retreated. The drift thickness in Gladstone ranges from approximately 10 feet along the shore line of Little Bay DeNoc to nearly 200 feet on top of the escarpment. It is composed primarily of thin deposits of muck and peat underlain by sandy, silty, and clayey lake deposits; all of which bring about a wide range of soil types and permeability ratings.

After the glacier left the Upper Peninsula, much of the land surface was again undulated. Lake Algonquim, the first undulation, laid down a delta over one hundred feet thick along the western coast line of Little Bay DeNoc. After Lake Algonquin receded, a deluge of ice or glacial meltwater carved part of this delta away from the present escarpment which cuts through the city of Gladstone. This Delta is composed primarily of sand mixed with clay and silt. Two later undulations which were of lesser importance laid silt deposits over part of Saunders Point. These post-glacial undulations are responsible for the younger soils found in the area of Little Bay DeNoc.

Soils. Soils laid by the glacier and the post-glacial lakes in Gladstone are predominably Rubican, Roselawn and Grayling. These soils are mainly drouthy sands of low fertility and well drained. There are local ones of heavier sorts, also some areas of mucks and peats.[3] This land is very low or of no value for general farming; small acreage is suitable, however, for high-acre-value crops under special management.[4]

Climate and Drainage. The annual mean temperature in Delta County is 41.9°F. The average day of the first killing frost is October 5 and the last is estimated to be May 12. The county receives an average of 29.2 inches of precipitation per year.

Surface drainage in Gladstone is divided by the escarpment which acts as a natural drainage divide. Below the escarpment the surface waters drain naturally into Little Bay DeNoc. On top of the escarpment most of the surface runoff north of M-38 drains northwest toward Lake Minnewasca, the area south of M-38 drains into the Escanaba River.

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3 Soil Conservation Department--Michigan State Univer University.

4 Source: Jo Veatck, Department of Agriculture, Bulletin 231, Michigan State University.

EXISTING GROWTH PATTERNS

Gladstone's land use pattern was greatly influenced by both the physical geography of the area and the original design of the developers. The escarpment and the low wet areas in the northern portion of the city played a significant role in determining where this development would occur.

The major factor affecting the land use pattern of Gladstone, however, can be traced back before the turn of the century when the Minneapolis, St. Paul and Sault Ste. Marie Railroad Company planned the original settlement and plotted most of the street pattern as it presently exists. The area was developed as a planned industrial community. The raw materials base of wood products plus the rail and docking facilities made this community an ideal location at that time. Most of the land adjacent to the bay was intended to be used for industry to take advantage of the combined rail and docking facilities. The depression of the 1930's and the depletion of the raw materials of the area combined to prevent any major industrial development here.

THE PRESENT COMMUNITY PATTERN

The original industrial pattern still exists today, however. Industrial corridors form an inverted letter Y by starting along the waterfront just below the northern

city boundary and branching off at the railroad triangle which terminates at Fifth Avenue. The eastern branch or corridor follows the waterfront and at present is the location of most of the active industry in the community. The western corridor is composed primarily of railroad right-of-way with the exceptions of the Marble Arms site and the post factory to the south. Very little of the northern corridor is used for industry. Most of the new development in this district is transient-automobile-oriented commercial activities.

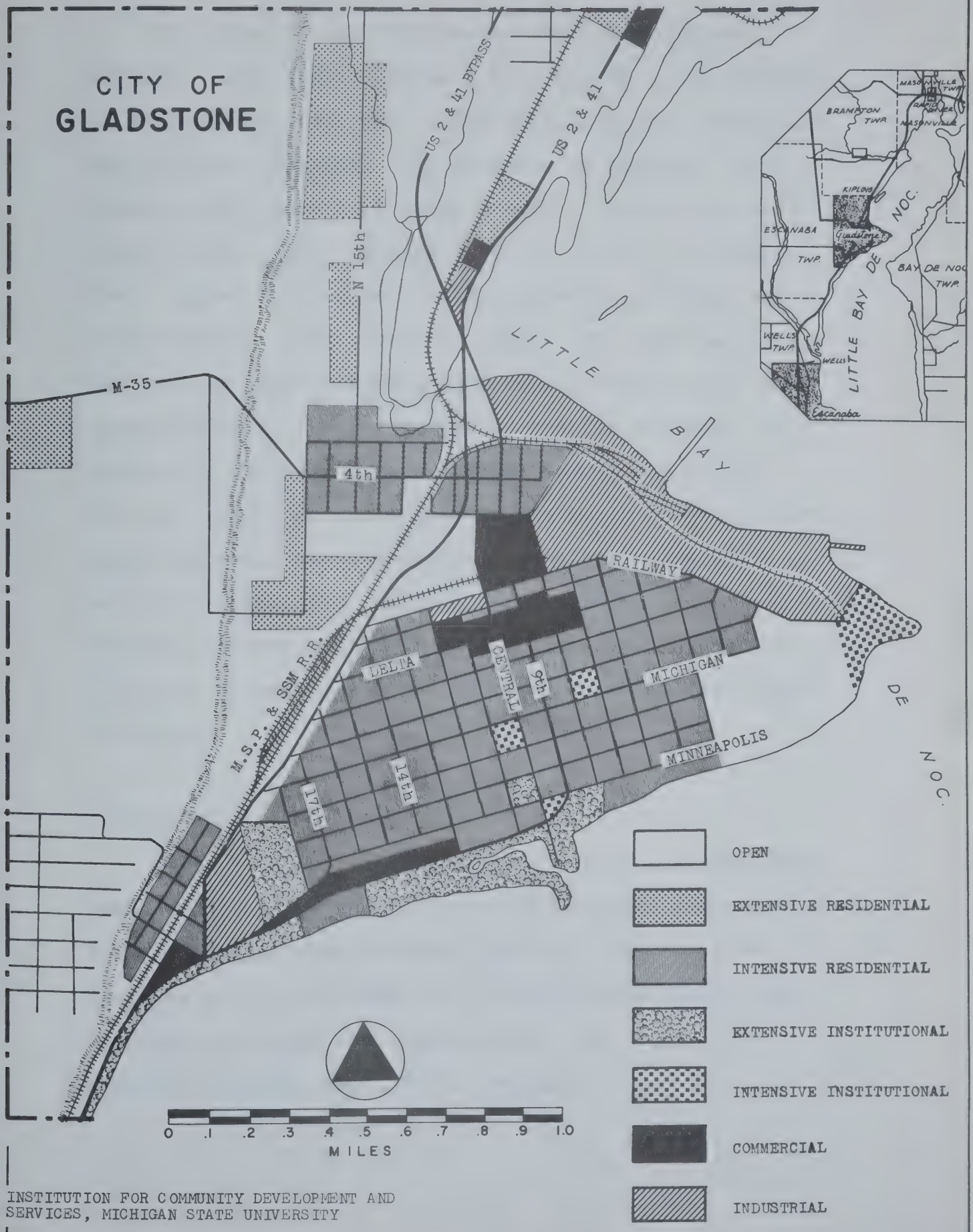
Most of the developed residential land in the community is found in the central city area, nestled between the two lower industrial corridors and separated from them by Railway Avenue. This land represents the area which was originally platted prior to the turn of the century by the railroad company. A smaller rectangular-shaped residential district lies directly to the north. Together, these two areas form the most intensively developed residential land in the city. Other scattered residences have located along North Fifteenth Street and on top of the bluff. The commercial districts are located in three general areas. The Central Business District, the strip commercial along US-2 to the north and the strip commercial along US-2 on the south waterfront. The Central Business District is located primarily within a five-block area along the east-west oriented Delta Avenue. The Central Business District is located quite

advantageously between the "work to residence" pattern of traffic movement. While this relationship is desirable for buying purposes, care must be taken to allow alternative routes around the CBD (not residential streets) to carry through traffic. Ninth Street, which is the major north-south thoroughfare through the city, also serves as the main intersection in the CBD. The central business area functions primarily as a combined retail, wholesale and service district for the people of the community. Both strip commercial areas along US-2 to the north and along the southern shoreline function as automobile and transient serving activities.

The transportation system in the community, for the most part, is adequate to serve present conditions within the community.

The new US-41 bypass will cause several major changes in the traffic movements within Gladstone. Elimination of through traffic along Ninth Street will undoubtedly alleviate much of the internal circulation problems during the height of the tourist-season. However, consideration must be given to the existing commercial activities located along the present US-2 at the north end of the city. These activities are primarily transient-serving and adequate access to the by-pass is necessary if they are to remain economically sound.

EXISTING LAND USE MAP



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Gladstone is also confronted with the problem of having a large number of small city blocks. This problem is not atypical, but is a reflection of early techniques used in land platting. The presence of numerous small blocks means there is a large amount of land devoted to street usage. This results in fewer parcels of taxable land; higher maintenance costs, including cleaning and snow removal; greater utility costs; more intersections are created, necessitating additional traffic signs and signal devices; and the hazard of traffic accidents is increased. In areas where traffic congestion occurrs, through traffic is encouraged to short-cut into neighborhoods and avoid slow-traffic points by using parallel residential streets. Through the development of a community street system which utilizes major thorofares, collector routes, and local streets, these dangers can be minimized.

METHODOLOGY

Most of the basic data in this report has been tabulated and analyzed from a specially prepared card which has the various data recorded upon it. This card was designed by the Institute for Community Development and Services, Michigan State University. The cards were procured from the Royal McBee Company.

Recorded data is keyed to the card edge by a number code. These numbers are then punched out, or left unpunched as the code system would dictate. For the most part, applicable information is "punched out" at the card's edge. Thus, to sort specific cards, (i.e., a given land use characteristic), all parcel data cards which do not have this characteristic are "pulled", leaving all cards with the desired information (in essence, a negative sort process).

This is a permanent card record system of lasting value to the community, which will be maintained by the city assessor. Each card represents one property, coded in a manner identical to that currently used by the Assessor.

LAND USE CLASSIFICATION

Land use data for Gladstone were compiled from individual lot parcels into eleven analysis districts, which were cumulatively added to arrive at city totals (See Table 1). These city totals represent the net land area of the city, or that area excluding all public right-of-way and railroad property (which were placed in the transportations category). The gross or total land area of the city was arrived at by measuring the total amount of land within each analysis district and cumulatively adding for the gross city total. For the purpose of evaluating the character of land use in the city of Gladstone, the following categories were utilized ranging

from the least used or "extensive open" land to the most "intensively" used land:

Open. All land parcels which were vacant were included under this category. "Extensive Open" refers to vacant land which is nonplatted while "Intensive Open" refers to vacant platted land.

Residential. The residential category includes all the land parcels used by single family, two through four family, and multi-family dwellings (which includes apartments and mobile home parks).

Institutional. This category includes all the public and semi-public uses located in the community. "Extensive Institutional" refers to all park and playground facilities and "Intensive Institutional" refers to those uses where activity is normally carried on within a structure.

Commercial. Commercial land uses include all types of community business. No distinction is made between intensive or extensive operations.

Industrial. The "Extensive Industrial" division under this category refers to those industrial uses which are located on land which is predominately open, such as open storage or tank farms. "Intensive Industrial" uses are those which normally fabricate or process goods or materials within a building.

Transporting and Land Serving. This category includes all public right-of-ways and railroad property which function to distribute people and goods within the community. All other properties not accounted for were also included within this category.

A detailed breakdown of each of the above six categories can be obtained from the Secretary of the Planning Commission.

EXISTING LAND USE

By dividing Table 1, into a "city total" and "developed area" tables, it is easier to obtain a truer perspective of the present land use in Gladstone. It is evident when looking at Table 1 that the large percentage of vacant land tends to distort the statistics. For this reason the northern and southern reserve districts were dropped out of the "city total" section of Table 1, and the "developed" land totals added to the right-hand side of the table.

Open Land. The amount of vacant land in the community exceeds half of the total city land. Most of the vacant land is divided between the northern and southern reserves. These two districts account for 899.4 acres (over 70%) of the total vacant land in the city.

If these two districts are dropped from consideration and only the more highly developed areas are analyzed, the amount of vacant land drops to approximately one-fourth of the gross area. Nearly half of this is found in the northern corridor.

The four residential districts have 70.6 acres of vacant land which, for the most part, is developable. New residential growth should be steered toward filling as much of this usable vacant land as possible.

Residential Land Use. It can be observed from Table 1, that Gladstone is predominantly a single-family

Table 1

Existing Land Use

	City Totals					Developed Area Totals				
	Parcels		Acres			Parcels		Acres		
				Percent					Percent	
	Number	Percent	Number	Net	Gross	Number	Percent	Number	Net	Gross
OPEN	476	23.7	1064.8	56.9	43.9	264	15.3	305.9	32.3	23.6
Extensive	93	4.6	882.0	47.1	36.4	42	2.4	224.2	23.7	17.3
Intensive	383	19.1	182.8	9.8	7.5	222	12.9	81.7	8.6	6.3
RESIDENTIAL	1355	67.4	500.6	26.8	20.6	1284	74.5	347.6	26.7	26.9
House Trailers	12	0.6	7.0	.4	.3	9	.5	3.5	.4	.3
Single Family	1264	62.9	461.1	24.7	19.0	1197	69.5	318.6	33.6	24.7
2-4 Family	63	3.1	19.1	1.0	.8	62	3.6	12.1	1.3	.9
Multi-Family	16	0.8	13.4	.7	.5	16	.9	13.4	1.4	1.0
INSTITUTIONAL	32	1.6	76.7	4.1	3.2	31	1.8	73.9	7.8	5.7
Extensive	5	.2	62.9	3.4	2.6	4	.2	60.1	6.3	4.6
Intensive	27	1.4	13.8	.7	.6	27	1.6	13.8	1.5	1.1
COMMERCIAL	126	6.3	163.8	8.7	6.7	125	7.3	161.6	17.0	12.5
Retail	55	2.7	8.7	.5	.4	55	3.2	8.7	.9	.7
Wholesale	7	.4	2.9	.2	.1	7	.4	2.9	.3	.2
Automotive	19	.9	82.9	4.4	3.4	19	1.1	82.9	8.7	6.5
Service	14	.7	7.5	.4	.3	13	.8	5.3	.5	.4
Restaurant	6	.3	2.5	.1	.1	6	.4	2.5	.3	.2
Lodging	7	.4	15.7	.8	.6	7	.4	15.7	1.7	1.2
Amusement	16	.8	43.2	2.3	1.8	16	.9	43.2	4.6	3.3
Parking	2	.1	.4	.0	.0	2	.1	.4	.0	.0

Table 1 (cont.)

Existing Land Use

	City Totals					Developed Area Totals*				
	Parcels		Acres			Parcels		Acres		
INDUSTRIAL	Number	Percent	Number	Percent Net	Percent Gross	Number	Percent	Number	Percent Net	Percent Gross
INDUSTRIAL	20	1.0	65.3	3.5	2.7	19	1.1	58.4	6.2	4.5
Extensive	5	.3	49.4	2.6	2.0	4	.2	42.5	4.5	3.3
Intensive	15	.7	15.9	.9	.7	15	.9	15.9	1.7	1.2
Subtotal (net)	2009	100.0	1871.2	100.0	77.1	1723	100.0	947.4	100.0	73.2
TRANSPORTING AND OTHER										
Other***	-	-	186.3		7.7			45.8	-	3.6
Railroad	-	-	98.0		4.0			98.0	-	7.6
Public ROW**	-	-	271.4		11.2			201.5	-	15.6
TOTAL (Gross)	2009	100.0	2426.9	100.0	100.0	1723	100.0	1294.7	100.0	100.0

community. Most of the residential parcels are located in the central part of the city, which encompasses 77.7 per cent of all the residential dwellings in the city. The residential acreage in this area accounts for only 47.7 per cent of the city total. The reason for this difference stems from the fact that the residential density is much higher in the central area than in the other residential areas. The other concentration of dwellings is located in the northern residential district, which accounts for an additional 7.9 per cent or 182 residential structures. The two residential areas combined total 85.6 per cent of all the dwelling structures in the city, indicating a fairly compact residential development pattern.

Dwelling Structural Characteristics. Table 2, indicates that 56.3 per cent of all residential structures were built prior to 1911. The average age of the 1,355 dwelling structures indicates that they were built during the decade of 1911 to 1920.

Data from the McBee Cards indicated that the average condition of the dwellings is slightly above a good classification, with 51.9 per cent being classified in the "very good" category. Of the 1,355 residential structures, 35.4 per cent do not have central heating and 6.2 per cent lack complete plumbing facilities.

Institutional. All parks and playgrounds, with the exception of a 2.8 acre site in the southern reserve,

are located in the central area of the city. Neighborhood recreation is serviced primarily by school grounds including the 14.8 acre athletic field located at the west end of the residential area.

The 33.9 acre tourist park along the waterfront accounts for a large portion of the land devoted to park and playground use in the city.

Commercial. Commercial activities account for 6.3 per cent of the parcels and 6.7 per cent of the total land area of the city. The total amount of commercial land shown in Table 1 is misleading, however, due to one parcel having 69.9 acres, amounting to 42.7 per cent of the total commercial acreage. Practically all commercial land is located in the more highly developed districts of the city. Over 64 per cent of all the commercial land use parcels are located within the central business districts. These 80 parcels use only 16.9 acres of land, or an average of 0.2 of an acre per parcel.

Commercial activities are scattered through the four primary residential districts. Fourteen of the 27 commercial activities found in the residential districts are of a retail nature, the rest tend to be a cross-section of the remaining types of commercial functions.

Industrial. Industry accounts for only 1 per cent of the total number of parcels in the community. This one per cent represents only 20 parcels which use 65.3 acres or 2.7 per cent of the total land area of the city.

Most of this acreage is consumed by three extensive or open industrial uses, which account for 64.5 per cent of the land use by industry.

Transporting. Table 1 does not give a true picture of the transportation and land serving functions as a user of land resources. Table 1 indicates that only 7.6 per cent of the total developed area of the city is used for railroad purposes, and only 4 per cent if compared with city totals. However, this percentage is relatively high for a community the size of Gladstone and may well be a major asset to induce the future development of industry in the community.

The percentage of land in public right-of-way, indicated by Table 3, is another area which should be clarified. Most older communities normally have nearly 25 to 30 per cent of their developed land devoted to public right-of-way. Gladstone's developed area totals indicated they have only about half that amount.

It can be seen from Table 3 that the percentage of land devoted to public right-of-way in each of the districts within the central area is considerably more than in the outlying districts, which are extensive in nature. The average amount of land devoted to public right-of-way in the central area is 25.9 per cent compared to 6.1 per cent in the other districts. The fact that the five outer districts have over 2.8 times as much land and a much lower percentage of public right-of-way

Table 2

Residential Dwelling Characteristics
By Structure, By
Planning Analysis Districts

	DISTRICT NAME AND NUMBER											
	1 Northern Reserve	2 Southern Reserve	3 North Corridor	4 East Corridor	5 West Corridor	6 Central Business	7 Northern Residential	8 Western Residential	9 Central Residential	10 Eastern Residential	11 Waterfront	TOTAL
Condition												
Poor	-	-	-	-	1	3	1	5	--	15	-	29
Fair	6	13	6	-	-	9	27	60	20	42	1	184
Good	14	14	18	-	10	52	50	66	100	108	2	434
Very Good	4	18	17	-	13	40	104	251	106	102	48	703
Excellent	-	-	-	-	-	3	-	1	-	-	-	5
TOTALS	24	47	43	-	24	107	182	383	226	268	51	1355
Age												
Pre-1900	1	7	8	-	3	59	50	90	97	112	3	430
1900-1910	1	6	14	-	2	28	78	88	56	53	7	333
1911-1920	9	3	4	-	3	7	21	34	30	31	2	144
1921-1930	4	1	4	-	4	2	6	43	14	21	5	104
1931-1940	2	7	1	-	4	1	13	16	5	14	8	71
1941-1950	2	10	7	-	4	3	7	38	11	17	5	104
1951-1960	5	13	5	-	4	7	7	74	13	20	21	169
TOTALS	24	47	43	-	24	107	182	383	226	268	51	1355
No Central Heat	17	30	33	-	16	37	123	86	33	95	10	480
No Plumbing	6	18	17	-	3	1	12	3	1	19	4	84

Table 3

PUBLIC RIGHT-OF-WAY BY ANALYSIS DISTRICT

DISTRICTS	1	2	3	4	5	6	7	8	9	10	11	TABLE
Public ROW Acres	11.0	56.9	21.1	5.9	14.4	22.3	24.2	42.5	28.1	28.8	16.2	271.4
% of District	2.0	9.8	6.2	7.5	7.5	22.2	32.1	31.5	32.3	21.9	15.2	11.2

Table 4

CURRENT USE OF ZONED LAND

Zone	Net Acreage Zoned	Net Acreage Used for Activity	Amount Over or Under Zoned	Per Cent Over or Under Zoned
Agricultural	952.0	---	N.A.	N.A.
Residential	519.0	500.6	18.4	0.04
Commercial	98.3	163.8	-65.5	-40.00
Industrial	301.9	65.3	236.6	362.00

than the central area is the main contributing factor to the low total city right-of-way percentage.

ZONING

Zoning represents the primary tool with which the community controls its development. Achieving desirable land use relationships is an important community function. Proper functioning land use relationships achieve community stability by preserving land values and promoting the public health, safety and general welfare of the community.

This report will not attempt an evaluation of Gladstone's Zoning Ordinance, but is rather aimed at presenting the quanitative relationship among various use zones. Table 5 shows the number of parcels and the total acreage within each zoning class by analysis districts and city totals. Table 4 represents the present relationship between the total amount of net land used and the total amount zoned for each of the primary use classifications.

Table 4 seems to indicate that there is not much land available for future residential development. Comparison of Table 1 with Table 5 for each analysis district shows that this near balance is due to the fact that a considerable amount of the outlying property in residential use is located in the agricultural zone. The parcels under the community serving category that use residentially zoned land and the large residentially

Table 5

ZONED DISTRICT ACREAGE BY ANALYSIS DISTRICTS

ZONED DISTRICT	DISTRICT											TOTAL
	Northern Reserve	Southern Reserve	North Corridor	East Corridor	West Corridor	Central Business	Northern Residential	Western Residential	Central Residential	Eastern Residential	Waterfront	
"A" Residential		140.9	3.0	---	18.3	1.0	33.1	78.5	46.9	84.6	64.6	470.9
"B" Residential						13.2			6.3	12.0	16.6	48.1
"C" Agricultural	400.0	382.6	107.8	---	31.6	30.0	---	---	---	---	---	952.0
"D" Business	---	---	---	---	23.0	29.4	16.7	13.8	5.7	5.9	3.8	98.3
"E" Industrial	---	0.3	172.4	95.2	26.6	4.7	0.1	---	---	---	2.6	301.9
TOTAL	400.0	523.8	283.2	95.2	99.5	78.3	49.9	92.3	58.9	102.5	87.6	1871.2

acreage parcels zoned agriculture tend to statistically balance out the amount of residentially zoned vacant land.

Of significance is the fact that the present zoning map promotes undesirable strip commercial development. Nearly all the commercial areas are of a linear nature and rarely exceed a block and one-half in width.

Only 21.6 per cent of the land zoned for industry is used for industrial processes. Much of the industrially zoned land in the north corridor is vacant; however, a considerable amount of this land is being developed at present by commercial activities. If it is decided that this land should be used for industry in the future, industrial functions will be forced to compete with existing and potential commercial activities for this land.

LAND OWNERSHIP

Table 6 shows that 1912 parcels which make up 1,570.4 acres of the net land area in the city is in private ownership. These figures represent 95.2 per cent and 83.9 per cent respectively of the city totals. Corporate ownership ranks second in the number of parcels (34) and its importance as a tax base. City land constitutes 9.2 per cent of the net city total as compared to 5.0 per cent in corporate ownership.

Table 6

LAND OWNERSHIP ACREAGE, BY ANALYSIS DISTRICT

OWNERSHIP TYPE	DISTRICT											TOTAL
	Northern Reserve	Southern Reserve	North Corridor	East Corridor	West Corridor	Central Business	Northern Residential	Western Residential	Central Residential	Eastern Residential	Waterfront	
Private	320.0	510.8	237.0	95.2	53.6	66.7	47.5	90.0	48.0	61.3	40.3	1570.4
Corporate	---	6.9	44.4	---	30.9	10.3	---	0.2	---	0.5	---	93.2
Federal	---	---	---	---	---	0.3	---	---	---	---	---	0.3
State	---	0.3	1.8	---	---	---	---	0.3	---	---	0.3	2.8
City	80.0	5.3	---	---	---	0.7	0.1	---	0.1	39.6	46.6	172.4
Religious	---	---	---	---	---	0.2	---	1.6	3.9	0.4	0.3	6.4
School	---	---	---	---	14.8	---	2.3	---	6.9	0.7	---	24.7
Other	---	.5	---	---	.2	.1	---	.2	---	---	---	1.0
TOTAL	400.0	523.8	383.2	95.2	99.5	78.3	49.9	92.3	58.9	102.5	87.6	1871.2

There is a total of 206.9 acres of tax exempt land in the city, accounting for 11.1 per cent of the net land area in the city.

LAND VALUE

The total assessed value of land in the city of Gladstone is slightly over 5.9 million dollars. Table 7 indicates how this total is distributed between the analysis districts and by land use.

All major land use categories, except Institutional, contributes a higher proportion of the tax base than industrial land uses. Residential land picks up a heavy portion of the tax burden paying 69.6 per cent of the total assessed value of the city. Commercial and open land are second and third contributing 15.3 per cent and 7.5 per cent respectively. The industrial base of the community is ranked fourth, contributing 7.1 per cent of the total land assessment in the city. There are 56 parcels in the city which are exempt from taxes.

Statistical Summary

The following summary data was abstracted from the tables found in this report.

Open or Vacant Land:

(1) 51.6 per cent of the city's gross land area is vacant. (This figure includes all land in "other" category under Transportation).

(2) 23.6 per cent of the gross land area in the developed area is vacant.

(3) 476 or 23.7 per cent of the total land parcels are vacant.

(4) 7.5 per cent of the city's assessed valuation is in open land.

(5) $421 is the average assessment value per acre.

(6) Average size per parcel of open land:

a. Extensive is 9.5 acres percel.

b. Intensive is 0.5 acres per parcel.

c. Net total is 2.2 acres per parcel.

Residential:

(1) 20.6 per cent of the city's gross land area is in residential use.

(2) 26.9 per cent of the gross land area in the developed area is residential.

(3) 1,355 parcels of land are classified residential (67.4 per cent of total).

(4) 25.2 per cent of the city is zoned for residential use.

(5) 69.6 per cent of the city's assessed valuation is in residential use.

(6) $3,039 is the average assessment value per residential parcel.

(7) $8,226 is the average assessment value per residential acre.

(8) 0.4 of an acre is the average size per residential parcel.

(9) Residential structure summary:

a. Average age shows structures built between 1911-1920.

b. Average conditions of all dwelling structures is "good".

c. 35.4 per cent of all dwelling structures lack central heating.

d. 6.2 per cent of all dwelling structures lack plumbing.

Institutional:

(1) 3.2 per cent of the city's gross land area is in institutional use.

(2) 5.7 per cent of the gross land area in the developed area is in institutional use.

(3) 32 parcels of land are classified institutional (3.2 per cent of total).

(4) 2.4 acres is the average institutional parcel size.

Commercial:

(1) 6.7 per cent of the city's gross land area is in commercial use.

(2) 12.5 per cent of the gross land area in this developed area is in commercial use.

(3) 126 parcels of land is devoted to commercial use, (6.3 per cent of total).

(4) 5.2 per cent of the city is zoned commercial.

(5) 15.3 per cent of the city's assessed valuation is from commercial use.

(6) $7,206 is the average assessed value per commercial parcel.

(7) $5,543 is the average assessed value per commercial acre.

(8) The average size per commercial parcel is 1.3 acres.

Industrial:

(1) 2.7 per cent of the city's gross land area is in industrial use.

(2) 4.5 per cent of the gross land area in the developed area is in industrial use.

(3) 20 parcels of land are classified industrial (1.0 per cent of the total).

(4) 16.1 per cent of the city is zoned for industry.

(5) 7.1 per cent of the city's assessed valuation is from industrial use.

(6) $21,085 is the average assessed value per industrial parcel.

(7) $6,458 is the average assessed value per industrial acre.

(8) The average size per industrial parcel is 3.3 acres.

Transporting and Land Serving:

(1) Railroad property accounts for 4.0 per cent of the total land of the city and 7.6 per cent of the developed area total.

(2) 11.2 per cent of the city's gross land area is in public right-of-way.

(3) 15.6 per cent of the gross land area in the developed area is in public right-of-way.

(4) Combined, the transportation functions account for 23.2 per cent of the gross land area of the city.

Table 7*

ASSESSED VALUE, BY LAND USE, BY ANALYSIS DISTRICTS

LAND USE CATEGORIES	DISTRICT NAME AND NUMBER					
	Northern Reserve	Southern Reserve	North Corridor	East Corridor	West Corridor	Central Business
	1	2	3	4	5	6
Open-Intensive	$ 750	$ 34365	$ 4950	$ ---	$ 1230	$ 14065
Open-Extensive	5460	9290	275425	---	24980	1890
House Trailers	1150	2474	1765	---	---	13490
Single Family	49335	111439	94590	---	71755	241200
2-4 Family	7500	---	---	---	---	41755
Multi-Family	---	---	31720	---	---	19465
Recreation	---	---	---	---	---	---
Institutional	---	---	---	---	---	21840
Retail	---	---	---	---	---	246650
Wholesale	---	---	---	---	---	35050
Automotive	---	---	8370	37905	---	111115
Services	---	11345	15400	---	---	54275
Restaurant	---	---	---	---	---	15025
Lodging	---	---	27850	---	---	---
Amusement	---	---	5255	---	10000	102870
Parking	---	---	---	---	---	595
Industrial-Int.			34735	47000	---	83225
Industrial-Ext.		1530		191400	45560	9385
TOTAL	$64195	$170493	$500060	$276305	$153525	$1011915
Number of Exempt Parcels	1	4	2	0	3	6

* Continues on page 32.

Table 7 (cont.)

ASSESSED VALUE, BY LAND USE, BY ANALYSIS DISTRICTS

LAND USE CATEGORIES	DISTRICT NAME AND NUMBER					TOTAL
	Northern Residential 7	Western Residential 8	Central Residential 9	Eastern Residential 10	Waterfront 11	
Open-Intensive	$ 7885	$ 20525	$ 8210	$ 12975	$ 22420	$ 126375
Open-Extensive	---	---	---	---	4710	321755
House Trailers	815	---	---	4090	---	23784
Single Family	422010	1273295	715690	547149	250555	3777018
2-4 Family	3200	29780	49700	75990	15680	223805
Multi-Family	---	7860	15845	---	18265	93155
Recreation	---	---	---	---	---	---
Institutional	---	---	5765	---	---	27605
Retail	11555	13210	14580	---	---	285995
Wholesale	---	6140	---	840	6220	48250
Automotive	---	---	28635	---	14145	200170
Services	---	4850	22095	---	---	107965
Restaurant	---	---	---	---	22905	37930
Lodging	---	---	11260	---	52735	91845
Amusement	5380	5600	6150	---	---	135255
Parking	---	---	---	---	---	595
Industrial-Int.				6900	1970	173830
Industrial-Ext.						247875
TOTAL	$449845	$1361260	$877930	$647944	$409785	$5923207
Number of Exempt Parcels	5	6	16	4	9	56

COMMUNITY ANALYSIS DISTRICTS

When data is tabulated on a city-wide basis, it is difficult to attain a true picture of the functional components of the community. Much of the data is thrown out of balance by statistics which are atypical of the community. For this reason, Gladstone was divided into eleven "analysis districts". The boundaries of these districts, for the most part, followed predominate land use patterns. Where an area of "like" land use was too large to be meaningfully analyzed, or if the character of segments of a "like" land use area varied, the larger land use area was split into two or more districts. By having data available by analysis districts, which, in the case of Gladstone reflect predominate land use districts, it is possible to have a check on community-wide totals. They further serve as valuable reference when determining development standards and where future growth should go when developing the community master plan.

A summary of existing land use acreages, by analysis districts, is shown in Table 8. Plate 3 shows the boundary location of these analysis districts. The following listing identifies the name of each of the districts used in Gladstone:

District 1 -- Northern Reserve
District 2 -- Southern Reserve
District 3 -- North Corridor

District 4 -- ~~East~~ West Corridor
District 5 -- ~~West~~ East Corridor
District 6 -- Central Business District (CBD)
District 7 -- Northern Residential
District 8 -- Western Residential
District 9 -- Central Residential
District 10-- Eastern Residential
District 11-- Waterfront

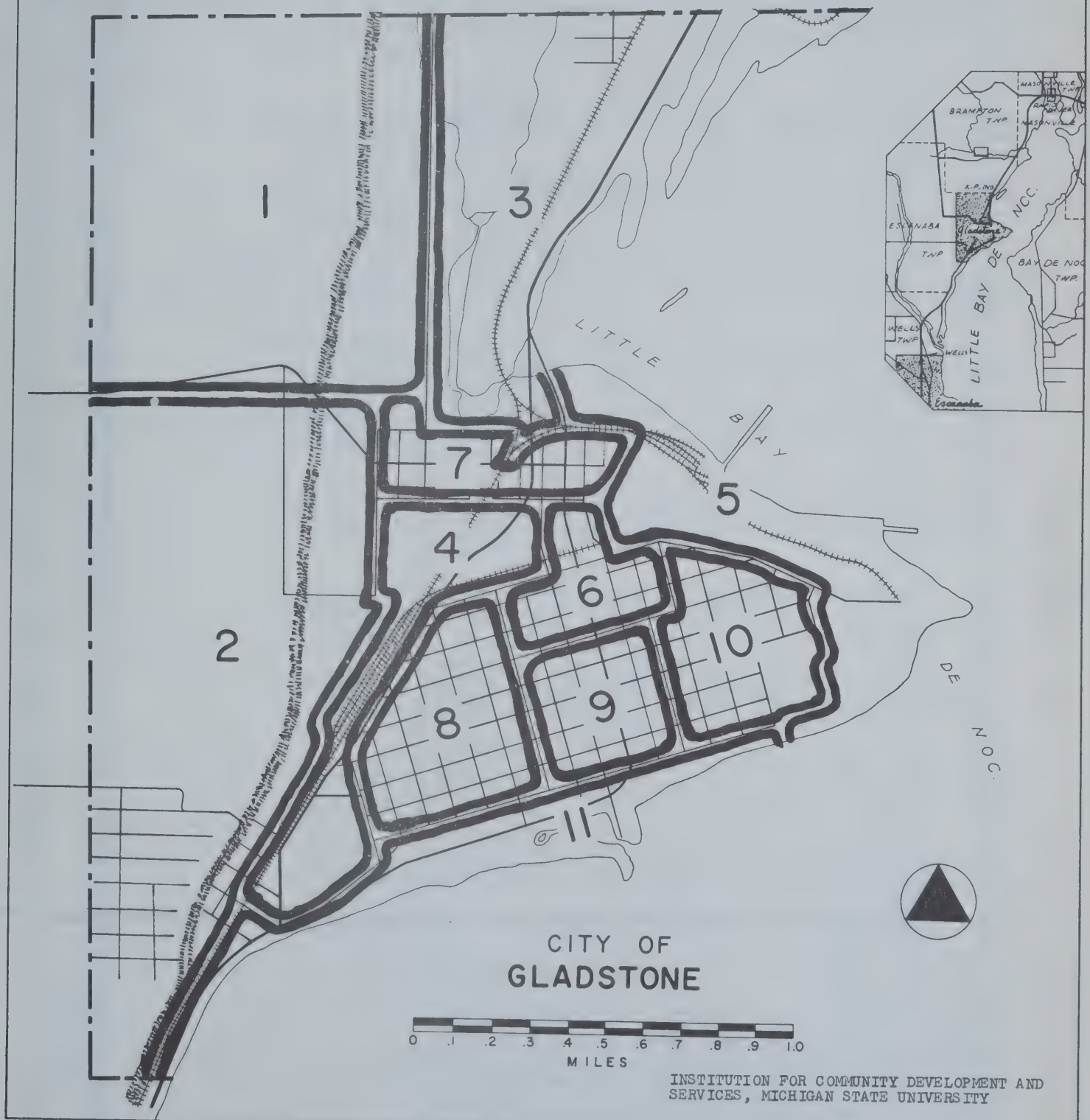
District One--Northern Reserve

The bulk of the northern reserve is situated on top of the escarpment and is predominately vacant in nature. This district represents 22.7 per cent of the gross land area of the city, but only 9.7 per cent of the developed land. (Developed land represents the total city land area minus all open land.) Vacant land constitutes 79.4 per cent of the 55.5 acres in this district. The remaining area is composed of eleven acres of public right-of-way and scattered low density residential dwellings, which average 4.2 acres in this district.

Ninety-two per cent of the residential structures in the northern reserve were built after 1910. The average age of the 24 dwelling structures indicates they were built during the decade from 1921 to 1930. The average condition of the dwellings fall within a good category, however, 70.1 per cent do not have central heating and 25 per cent lack plumbing facilities.

Three hundred and twenty acres, which is 80 per cent of the net land area in this district, is in private ownership, with but one 80 acre parcel in city ownership.

PLANNING ANALYSIS DISTRICTS



INSTITUTION FOR COMMUNITY DEVELOPMENT AND SERVICES, MICHIGAN STATE UNIVERSITY

Table 8

EXISTING LAND USE ACREAGE, BY ANALYSIS DISTRICTS

LAND USE CATEGORY	DISTRICT NAME AND NUMBER											TOTAL
	Northern Reserve 1	Southern Reserve 2	North Corridor 3	East Corridor 4	West Corridor 5	Central Business 6	Northern Residential 7	Western Residential 8	Central Residential 9	Eastern Residential 10	Waterfront 11	
Open-Intensive	25.1	76.0	29.2	---	2.1	5.7	10.9	9.1	3.0	8.1	13.6	182.8
Open-Extensive	272.3	385.5	131.3	---	42.3	9.5	---	---	---	39.5	1.6	882.0
House Trailer	2.7	0.8	0.3	---	---	2.6	0.1	---	---	0.5	---	7.0
Single Family	92.9	49.6	47.5	---	14.9	34.0	36.3	78.9	39.1	48.7	19.2	461.1
2-4 Family	7.0	---	---	---	---	2.2	0.3	1.4	2.4	4.9	0.9	19.1
Multi-Family	---	---	9.4	---	---	2.0	---	0.2	1.1	---	0.7	13.4
Recreation	---	2.8	---	---	14.8	---	---	---	1.4	---	43.9	62.9
Institutional	---	---	---	---	---	1.3	1.5	1.3	8.9	0.4	0.4	13.8
Retail	---	---	---	---	---	6.9	0.6	0.7	0.5	---	---	8.7
Wholesale	---	---	---	---	---	1.5	---	0.2	---	0.2	1.0	2.9
Automotive	---	---	5.8	69.9	---	5.1	---	---	1.1	---	1.0	82.9
Service	---	2.2	3.4	---	---	1.0	---	0.2	0.7	---	---	7.5
Restaurant	---	---	---	---	---	0.3	---	---	---	---	2.2	2.5
Lodging	---	---	12.5	---	---	---	---	---	0.3	---	2.9	15.7
Amusement	---	---	35.0	---	5.6	1.7	0.2	0.3	0.4	---	---	43.2
Parking	---	---	---	---	---	0.4	---	---	---	---	---	0.4
Industrial-Int.	---	---	8.8	3.0	---	3.7	---	---	---	0.2	0.2	15.9
Industrial-Ext.	---	6.9	---	22.3	19.8	0.4	---	---	---	---	---	49.4
Sub-Total	400.0	523.8	283.2	95.2	999.5	78.3	49.9	92.3	58.9	102.5	87.6	1871.2
Other	140.5	---	23.3	22.5	---	---	---	---	---	---	---	186.3
Railroad	---	---	15.4	---	78.3	1.4	---	---	---	---	2.9	98.0
Public R.O.W	11.0	56.9	21.1	5.9	14.4	22.3	24.2	42.5	28.1	28.8	16.2	271.4
TOTAL	551.5	580.7	343.0	123.6	192.2	100.6	75.5	134.8	87.0	131.3	106.7	2426.9

The northern reserve accounts for only 1.1 per cent of the total assessed value of the city, yet encompasses 22.7 per cent of the land area. Over 90 per cent of the assessment is levied against the 24 residential parcels which use 18.6 per cent of the land in the district.

All the land in the northern reserve is presently in Zone C--Agriculture.

District Two--Southern Reserve

Like the northern reserve, most all of the southern reserve is situated on top of the escarpment. There is a total of 580.7 acres of land in this district, 79.5 per cent of which is vacant. Residential land is the second major use of the district, with 50.4 acres and using 8.7 per cent of the land area. All the residential land is devoted to single family parcels (average 1.1 acres each). This is considerably less than the 4.3 acres per residential parcel in the northern reserve. Nearly 57 acres of land has been dedicated for street right-of-way, however, much of this is in the lower portion of the district and has not been improved. The total land used or dedicated for use in this district makes up 10 per cent of the total developed land in the community.

The age of all residential dwellings in the southern reserve indicates that they are, on the average, between 20 and 30 years old. Nearly half have been built in the last twenty years.

Nearly 64 per cent of the 47 dwellings in the district have no central heating and over 38 per cent lack plumbing facilities.

Nearly all the Southern Reserve is in either private or corporate ownership. Only 7 parcels, totaling 6.1 acres are under other ownership, excluding public right-of-way. Residential land use produces 66.8 per cent of the tax revenue in the district. While the amount of vacant-platted land in District 2 is 200 per more than in District 1, the assessed value of District 2 is nearly 4,600 per cent greater. The Southern Reserve accounts for 2.9 per cent of the total assessed value of the community.

Most of the land in District 2 is in the Class C-Agricultural zone. The Bay View addition and the South Gladstone addition subdivisions which take up 26.9 per cent of the land area is zoned A-Residential. One small parcel is zoned industrial.

District Three--North Corridor

The North Corridor received its name primarily because of its zoned use. However, this title may well be misleading because only five parcels totaling 8.8 acres are in industrial use. The rest of the developed land in the district is rather evenly distributed between residential, commercial and transporting functions. Open or vacant land accounts for 53.6 per cent of the total

land area in the district. The average residential parcel size is 1.3 acres, which is still of a low density nature.

Nearly half of the 43 dwellings in the north corridor were built prior to 1911. The average age of the dwellings falls within the decade from 1911-1920.

The condition of the 43 dwellings is slightly over a good classification. Seventeen per eent of the dwellings do not have central heating and 40 per cent do not have plumbing. These plumbing and heating figures offset the "good" quality classification.

All the land in the north corridor is in private or corporate ownership except one small parcel which is owned by the state. This private and corporate land accounts for 8.4 per cent of the tax base of the community. Assessments on open land produces 56.1 per cent of the taxes in this district. Residential land is second with 25.6 per cent and commerce third with 11.4 per cent. Vacant land in this district is assessed an average of $1,747 per acre while the average for the rest of the districts is only $156 per acre.

Nearly 61 per cent of the land area is zoned industrial in this district. With the exception of three acres, the rest of the land is zoned agriculture.

District Four--East Corridor

The east corridor is located along the northeast shoreline of Saunders Point and is the location of most of the present industry in the community. This district represents 5.1 per cent of the total land area in the city. One automotive-oriented commercial parcel takes up 56.6 per cent of the land in this district. Industry uses 25.3 acres or 20.5 per cent of the land. No residential land use is located in this district.

All the net land acreage is in private ownership, which contributes 4.7 per cent of the total tax revenue of the city. Industry pays 86.3 per cent of the total tax assessment in this district. All of the land in the east corridor is zoned for industry.

District Five--West Corridor

The west corridor takes in most of the railway yards along the north and west side of the residential area. It is characterized most by rail facilities which utilize 40.7 per cent of the district's land; and open space, which consumes 23.1 per cent of the area. The remaining acreage is split nearly equally between each of the remaining major land use.

The average decade of construction of the 24 dwelling structures was from 1921 to 1930. The condition of these structures is above average. Sixty-seven per cent of these dwellings lack central heating and 12.8 per eent lack plumbing facilities.

Eighty-five per cent of the land parcels in the West Corridor are in private and corporate ownership. School land accounts for most of the remaining land in the district. The district contributes 2.6 per cent of the value of the city's tax base. Residential land parcels contribute 46.7 per cent of the district's taxes as compared to 29.7 by industry, the district's second largest tax payer.

Thirty-two per cent of the district is zoned for industry. The rest of the land is split between the other zoning classifications.

District Six--Central Business

The Central Business District accounts for 80 of the 126 commercial parcels in the community. Although 63.5 per cent of the commercial parcels are located in the Central Business District, they comprise only 10.3 per cent of the total acreage in commercial use. Large outlying parcels, like the 69.9 acre parcel located in the East Corridor tend to exaggerate this percentage relationship. Most of the land in this district is devoted to residential use which makes up 40.6 per cent of the district's land area. Land in public right-of-way is second in use with 22.2 per cent and commercial use is third with 16.8 per cent of the total district.

Eighty-one per cent of the 107 residential structures in this district were built before 1911, with over half being pre-1900. The ages of the dwelling

structures indicates that, on the average, they fall within the decade from 1901 to 1910. The average condition of these structures is "good". While 34.6 per cent of these structures do not have central heating, only one lacks plumbing facilities.

Private and corporate ownership accounts for 98.3 per cent of the parcels in this district. The Central Business district accounts for 17.1 per cent of the city's total assessed value; of which commercial uses contribute 31.2 per cent.

Sixty-six per cent of the parcels comprising 37.5 per cent of the land area in the Central Business District area are zoned for business. The other major share of parcels are zoned residential.

District Seven--Northern Residentrial

The Northern Residential district is the second largest area supporting a grouping of residential dwellings. Residential parcels represent 80.1 per cent of the total 227 parcels in the district and 48.6 per cent of the land area. In comparing the number of parcels and the acreage of residential uses in the northern residential district with those of the total city, District Seven has 13.4 per cent of the total resiential parcels and 7.3 per cent of the total residential land. These residential parcels average

0.2 acres each. The second largest user of land in the district is public right-of-way, comprising 32.1 per cent of the land.

Nearly 82 per cent of the 182 residential structures were built prior to 1921. The age of the structures in this district indicate they are, on the average, between 40 and 50 years old. The condition of these structures averages out to a "good plus" rating. Sixty-eight per cent of the structures lack central heating and 7 per cent lack plumbing.

Only five parcels totaling 2.4 acres of the net acreage in the district are not in private ownership. These 5 parcels are in public ownership and do not pay taxes. The 222 parcels in the district that do pay taxes, however, contribute 7.6 per cent of the total city tax base. Residential property pays 94.7 per cent of the district's total.

Sixty-six per cent of the net land is zoned A-Residential, which encompasses 68.7 per cent of the parcels. Most of the remaining net land and parcels are zoned business.

District Eight--Western Residential

District Eight encloses a high of 28.3 per cent of the total number of residential parcels, yet the combined area of the district amounts to only 5.6 per cent of the total city area. This relationship is due

to smaller lot sizes of the district. The 383 residential parcels use only 80.5 acres of net land area for an average of 0.2 acres per parcel. Residential land uses 59.7 per cent of the land area. In comparison with the total residential use in the city the Western Residential district ranks as follows:

(1) It has 28.3 per cent of the total number of residential parcels in the city and 16.1 per cent of the total residential land.

(2) It has 37 per cent of the total number of residential parcels in the central area and 33.7 per cent of the residential land in this higher density area. The second largest land user is public right-of-way, accounting for 31.5 per cent of the district's land area. Nearly 40 parcels, averaging 0.2 of an acre each, are still vacant in this district.

The age of the residential structures indicate that they are, on the average, between forty and fifty years old. Nearly 20 per cent of the 383 dwelling structures, however, have been built since 1950. This fact is significant in that 43.8 per cent of the residential structures built since 1950 are located in the Western Residential district, showing the predominate area of residential growth in the last ten years. The condition of these structures averages out to a "good plus" classification. Almost twenty-three per cent lack central heating and only three lack plumbing facilities.

Of the total 433 land parcels in this district, 97.7 per cent, totaling 97.5 per cent of the land area, are in private ownership. The Western Residential district accounts for 23 per cent of the city's tax base. This is the highest percentage paid by any district. Residential property contributes 96.3 per cent of the taxes paid by this district.

Eighty-five per cent of the net land area in this district is zoned "A-Residential". The remaining 15 per cent of the land is zoned for business, yet only 1.5 per cent of the land is used for commercial activities.

District Nine--Central Residential

This district comprises a 25-block area which lies just south of the Central Business district, between the Western and Eastern Residential districts. The Central Residential district makes up 3.6 per cent of the city's total land area. Nearly half of the land is in residential use, totaling 83.4 per cent of the district's land parcels. The average residential parcel size is 0.2 of an acre. It has 16.7 per cent of the total number of residential parcels in the city and 8.5 per cent of the total residential land. In addition, this area has 21.8 per cent of the total number of residential parcels in the central area.

Public right-of-way takes up 32.3 per cent of the district. It is further noted that 14 commercial parcels are mixed through this district. Sixty-eight per cent of the 226 dwelling structures in this district were built prior to 1911.

The combined ages of all the structures indicates that they are, on the average, between 50 and 60 years old. The condition of these structures averages out to a "good plus" rating. Only 14.6 per cent of these structures do not have central heating and one lacks plumbing. Twenty of the public and semi-public uses account for 18.5 per cent of the district's net land ownership, with the rest in private ownership. The district pays 14.8 per cent of the city's tax base, of which residential property again contribute 88.9 per cent. The zoning pattern of this district reflects the residential use of the districts. However, there are two linear strips of land totaling 5.7 acres which are zoned commercial.

District Ten--Eastern Residential

The eastern residential district is located on the eastern side of the central area. This district encompasses 5.4 per cent of the city's total land area. Eighty-eight per cent of the district's land parcels and 41.2 per cent of its land area are devoted to residential uses. The average residential parcel size

is 0.2 of an acre. In comparison with city totals the Eastern Residential district ranks as follows:

(1) It has 19.8 per cent of the total number of residential parcels in the city and 10.8 per cent of the total residential land.

(2) It has 25.8 per cent of the total number of residential parcels in the central pyramid area and 22.7 per cent of the residential land in this higher density area.

There are 34 parcels of platted land still vacant in this district. Public right-of-way uses only 21.9 per cent of the land area in this district. This is due to the 39.5 acres of extensive open land which is included in the statistics. The combined ages of all the structures in the Eastern Residential district indicates they are, on the average, between 50 and 60 years old. The conditions of these structures averages out to a "good plus" rating. Thirty-five per cent of the 268 dwelling structures lack central heating and 7.1 per cent lack plumbing facilities.

While nearly all the land parcels in the districts are in private or corporate ownership, the two city parcels, amounting to 39.6 acres lower the percentage of land devoted to private and corporate use to 59.8 per cent. This district pays 10.9 per cent of the city's tax base, of which residential land again pays 96.6 per cent.

All of the land is residentially zoned except a 5.9 acre strip extending along Delta Avenue.

District Eleven--Waterfront

The waterfront forms the base of the central area. This district encompasses 4.4 per cent of the area within the city. Institutional land makes up its largest single land function, (32.1 per cent). Residential land and public right-of-way use 19.5 per cent and 17.9 per cent respectively. Fifty-six per cent of the land parcels however, are devoted to residential use. The disproportionate relationship of residential parcels to acreage used is because of the smaller land area per parcel.

The 51 residential dwelling structures constitute 3.8 per cent of the total number in the city. The characteristics of these structures, however, rate much higher than in the other residential districts. Forty-one per cent of the dwellings have been built since 1951, accounting for the average dwelling age of the district being only twenty to thirty years old. The average condition of these dwellings is "very good", which is the highest of any district. However, nearly 20 per cent of the dwellings lack complete plumbing.

The city owns 53.2 per cent of the net-land area in this district, most of which is due to the large holding in park property. Private ownership makes up the greater amount of the rest of the land. The water-front district accounts for 6.9 per cent of the city's tax base. Residential land pays 69.5 per cent of this district's assessment.

Nearly all the parcels are zoned residential except five which account for 6.4 acres of net land. Of this amount four parcels, totaling 3.8 acres, are in commercial and the remaining parcel, totaling 2.6 acres is zoned industrial.

SUMMARY

The overall land use pattern in Gladstone is somewhat atypical for communities of this size. The planned relationship and distinction between the various major land use functions is quite pronounced and is due principally because of the original planning by the Minneapolis, St. Paul and Sault Ste. Marie Railroad Company.

The present location of US-2 as it passes through the community has had a considerable influence upon new development and the distribution of this development within the city; particularly commercial establishments. The relocation of US-2 will likely induce new land use patterns upon the community. Necessary steps should be taken immediately to insure that new growth or the movement of present land uses do not locate so as to harm the existing land use pattern or cause a strain on the internal circulation pattern.

Present policies oriented toward bringing new industry into the community should be encouraged. Further planning of the industrial districts, however, is necessary to insure their functional and physical adaptability for industry.

Gladstone's proximity to transportation, favorable drainage, abundant water supplies, efficient and extensive community services and utilities, and a sound

and aesthetically pleasing physical plant, are community resources contributing to its potential physical and economic growth.

The economic growth of the entire Upper Peninsula will have a decided influence upon the gross development of Gladstone. In this respect, future growth in the area rests upon the joint cooperative efforts of Gladstone, Escanaba and Delta County. The physical resources in the county are abundant; the communities, though self and cooperative initiative, may use these resources to their advantage as an inducement for growth.

Some of the factors which represent current community problems include:

- The community lacks a housing and a building code to insure that structural and physical quality of all buildings is maintained.

- The community needs a subdivision ordinance to assure proper subdivision practices in the future.

- Several parts of the community are in need of rehabilitation; while most of the structures are sound, the appearance of both structure and yard need considerable maintenance.

- Development is beginning to spread to outlying areas in the community where community facilities will not be able to service future growth.

- Intermining of various land uses throughout the community should be discouraged in the future. This pattern is being fostered by the linear development pattern of commercial land uses.

- The poorer housing and transient commercial facilities along the southern waterfront should be improved so as not to downgrade the rest of the area.

Existing community strengths include:

- Gladstone's location on US-2 which will continue to serve the tourist.
- Gladstone's rail and possible docking facilities as well as its position along US-2, a primary trucking route, assures the community's potential location for industry.
- An extremely attractive waterfront and park setting.
- The probability of an improved regional circulation pattern.
- An awakened community interest in the planning process.

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ORGANIZATION FOR PHYSICAL DEVELOPMENT PLANNING IN KENT COUNTY, MICHIGAN

Prepared for the

Planning Committee of the
Kent County Board of Supervisors

by

Stewart Marquis, Urban Planner

Field Report No. 106

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

ORGANIZATION FOR PHYSICAL DEVELOPMENT PLANNING IN KENT COUNTY, MICHIGAN

Prepared for the
Planning Committee of the
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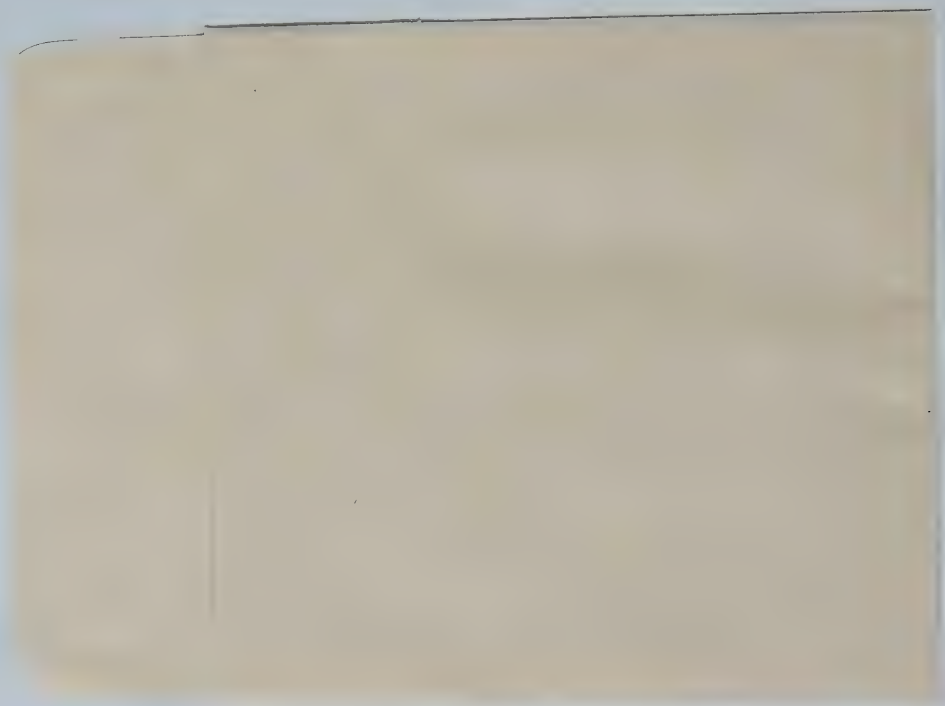

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INTRODUCTION

This summary report on organization for county-wide physical development planning in Kent County is part of a longer report still being completed for the Planning Committee of the Kent County Board of Supervisors. The sections on organization, what other Michigan counties are doing, and questions and answers are included here substantially as they will appear in the full report, while the initial sections covering the development situation, current planning activities, available and needed information, and the need for physical development planning will appear in greater detail in the final report.

The exploratory planning study on which this report was based was undertaken by the Planning Committee of the Kent County Board of Supervisors with staff assistance from the Institute for Community Development. This study was designed to assist the Planning Committee, the full Board of Supervisors, and interested groups and citizens in Kent County in analyzing the potentials of county-wide physical development planning and the various alternative forms of organization which might be appropriate for carrying out such planning in the county.

As originally agreed on, the study is to provide the following: (a) Statement of major physical planning and development problems and the need for organized county-wide planning for physical development; (b) Status of major past and present activities in the county related to physical planning and development problems; (c) Summary of available information (on physical development problems) and an outline of the additional kinds of information needed to specify the extent and location of physical development problems and to proceed to resolve or minimize them in the future; (d) Tentative outline of the organized program of research and planning needed to move toward the resolution of physical development problems; and (e) Statement of the major alternatives for organizing, financing and staffing a program of physical development planning. This summary report covers principally the last item, with some reference to others in this introduction and under questions and answers.

The intensive phase of this exploratory study covered a period of four-and-one-half months, starting in mid-November 1960 and finishing at the end of March 1961. The Kent County Cooperative Extension Service provided office space, secretarial help and various other services and materials. County, township, city and village officials and agencies cooperated in the provision of information and ideas for consideration in the study. Utilities, civic groups, professional associations, radio, television and the press were also very cooperative, as were individual citizens concerned about physical development in Kent County.

Development Situation

Most of the critical development problems in Kent County are related to the impact of nonfarm building development, the provision of physical facilities to serve new development areas, and the relationship of building development to natural resources. Future economic and population growth will heighten these problems, bringing greater demand for nonfarm use of land and for public services, facilities, protections, and funds. Reservation of land for critical uses will also be a growing problem.

> While land area for nonfarm economic activity and population is still less than ten per cent of the total area of the county, continuing conversion of land from farm to nonfarm uses is having increased impact on all areas of the county. In the Grand Rapids metropolitan area fifty to sixty per cent of the land is already in nonfarm uses, with about 16 square miles being converted between 1950 and 1960. Each outlying township has at least one-third of its families oriented to urban areas; and scattered nonfarm families and building development areas are bringing problems for active farming operations and greater demands for public services, facilities and funds. If Kent County's population grows by 60,000 to 90,000 people between 1960 and 1970, as has been projected, another 18 to 28 square miles of land will probably be converted to nonfarm use, with major impact on the metropolitan area, outlying cities and villages, lakefronts, expressway interchange areas, and along county roads, as well as more scattered nonfarm homes in farming areas.

- In order to meet the needs of growing economic activity, large flat tracts of land with rail and/or major road access and adequate water, sewage disposal and storm drainage will need to be reserved in appropriate areas of the county. Residential development tends to proceed on such land unless it is protected and reserved for critical industrial development. Sites will also be needed for other critical uses, such as schools, recreation areas, and major institutions, in areas of dense building development.

- Building development raises special problems in terms of water supply, sewage disposal and storm drainage, especially when densities reach two or more homes per acre or where native soils do not provide adequate internal drainage for individual septic tanks and drain fields. Water, sewage disposal and storm drainage systems may be needed when conditions of density or natural conditions make individual facilities inadequate. Many existing septic tanks in Kent County are discharging contaminated wastes onto the surface of the ground, into nearby wells, or into county drains and streams. In 1958 the Kent County Health Department reported sixty separate areas in the county where sewage overflow was an existing public health hazard, with about half of these areas in the metropolitan areas, one-fourth in metropolitan fringe townships, and one-fourth in outlying villages and townships. Over twenty per cent of the land area of the county is covered by soils considered unsuitable for individual sewage disposal systems, while another twenty-five per cent has soils which generally cause problems for such disposal systems. Much of the area on the fringe of the existing built-up portions of the Grand Rapids metropolitan area is covered by problem soils of these types.

Current Planning Activities

The various individuals, families, firms, institutions, utilities and organizations in Kent County are continually planning and carrying out various physical development

projects. Most of them are trying to solve or minimize current problems and meet current needs. Some also use careful planning methods to determine future potentials, working out ways and means for carrying out their current projects so they can also meet future needs and problems.

The county, township, village and city governments and school districts of Kent County plan for the organization, financing, staffing and administration of a variety of public services.

- These government agencies are also involved in planning for the construction and maintenance of the physical facilities which their service programs require. County agencies plan for airports, parks roads, and bridges, drains, and various kinds of county buildings and lands. Township governments plan for cemeteries, buildings and grounds, and, in some cases, water supply facilities. City departments plan for water supply, sewage disposal, and storm drainage facilities; street construction and maintenance; parks; libraries; street lights; and other buildings and grounds. School districts plan primarily for school buildings and sites.

- In addition to planning for these facilities which they construct and operate, local governments in Kent County have established standards for the location, size and quality of private and semi-public development and use of lands and buildings. Kent County has adopted a sewage code and administers some state regulations on new roads, platting, and trailer camps. All township governments but six have adopted building codes, while all but five have zoning ordinances. One village has a zoning ordinance; two have building codes; and one has a combination zoning-building-subdivision ordinance. All seven cities have zoning ordinances; five have building codes; and four have established subdivision (platting) regulations.

- Several local governments have established official planning commissions with responsibility to plan ahead for the future orderly development of the community, while others have adopted master physical development plans to guide future public, semi-public and private physical development in the community. Four cities, one village and

one township have official planning commissions. Four cities and one village have master physical development plans. Grand Rapids has the only permanent planning staff, though several other units have retained planning consultants.

State and federal agencies also carry on programs and projects of physical development in Kent County. Most of the planning and design for these is accomplished outside the county.

Available and Needed Information

While there seems to be a great deal of information available about the people, economic activities, local governments, natural resources and physical development of Kent County, much of this information is not sufficiently detailed or not related to specific locations in the county, does not adequately describe change, and is not readily available in one central place. There are serious gaps in just those kinds of information most needed for physical development planning, such as water resources and land and building use throughout the county

Relatively little has been done to analyze the interrelationships between the various kinds of data to establish the correlations between social and economic, governmental, natural resource, and man-made physical development. There has not been much determination of the interrelated problems, resources, conditions and standards of existing development or the basic causes, limiting factors, and potential and probable future direction, timing and extent of development.

However, the urgent need in Kent County is not just for more studies and detailed information. What is more critical at this point is to establish an organized procedure for analyzing the problems and needs of the county, determining and obtaining what additional information is actually needed, analyzing the situation and all realistic practical solutions, preparing integrated plans and programs and making specific recommendations for action by public, semi-public and private agencies.

- New data needs to be gathered, recorded and reported in forms that will make it readily available for use by all existing agencies in solving their problems and meeting their needs.

- Both available and additional information needs to be brought together, analyzed, and used to provide a meaningful basis for determining the most appropriate actions to meet current problems and needs, to avoid or minimize potential future problems, and to be prepared to meet future needs.

- It is evident from Kent County's recent experience that more studies alone will not meet this critical need. Additional information is important, but it must be obtained and used within the framework of a program which steadily focusses attention on the most significant decisions and actions needed to insure sound and orderly growth and development throughout the county.

At present there is no agency in Kent County responsible for looking at the full scope of past, present and potential development in the county, analyzing the possible alternatives for current action and their probable consequences, and bringing these considerations to a focus in the form of specific recommendations for action by public, semi-public and private agencies involved in physical development.

The Need for Physical Development Planning

The approach, techniques and importance of comprehensive physical development planning are relatively new in the scope of activities which a county government is permitted or expected to perform. State enabling legislation was adopted just sixteen years ago, while the problems and needs which this approach has been developed to meet have arisen mainly in the past twenty-five years.

Kent County has lagged behind some other metropolitan counties in Michigan in establishing a county-wide physical development planning program. Six of the fourteen counties in Michigan with more than 100,000 people in 1960 have

established county-wide planning programs. Two others have joined with adjacent counties in regional planning programs.

On the whole, new physical development in Kent County proceeds without the degree of conscious planning and coordination needed to meet the evident problems of both existing and future physical development.

- Problems and needs related to water supply, sewage disposal, and storm drainage are increasing and spreading to outlying areas of the county.

- Problems related to highways, industrial development, lakefront and roadside development, schools, and recreation areas are not being solved rapidly enough to keep up with the spread and intensity of building development in the county.

Continued economic and population growth in Kent County may be limited by the growing effects and problems of unguided and uncoordinated physical development.

- Expansion of existing industrial and business establishments and the attraction of new firms may be limited by failure to locate and reserve suitable land and provide needed public services and facilities.

- Unguided growth is increasing the costs of public services and facilities, thus increasing property taxes and other revenues measures needed to provide public funds.

- Failure to coordinate the efforts of county agencies, cities, villages, townships, and school districts as they include or affect physical development may bring the reputation of a county that is not interested in solving its physical development problems and needs, which is an increasing concern of desirable business and industrial firms.

Coordinated and comprehensive physical development planning is needed in Kent County to assist the people of the county in their efforts to:

- Insure sound, stable economic values and tax base.

- Prevent the waste of land, water and other natural resources.

- Conserve desirable built-up areas and protect them from the potential blighting effects of unguided and disordered physical development nearby.

- Make best use of available public funds by acquiring needed public land before costs get prohibitive, by coordinating the planning and construction of various public facilities, and by planning facilities adequate to meet the need of future well as current development.

- Protect Kent County firms, institutions, and families against the hazards of flooding, unsafe building construction, unhealthy water and stream pollution, and the blighting effects of poor construction standards, mixed land and building uses, and poor subdivision design.

- Provide the public services and facilities needed to serve growing economic activity and population.

Functions of County-Wide Physical Development Planning

Following are some of the important functions which a county-wide planning agency could carry out to assist in achieving better standards of physical development in Kent County:

Assist CITIES, VILLAGES, TOWNSHIPS AND SCHOOL DISTRICTS in their planning by:

- Providing basic research data and analyses from county-wide research studies.

- Providing general advice and technical assistance on development planning.

- Providing detailed technical planning assistance on special studies, formulation of plans, planning administration and continuing planning.

- Provide the framework of sound technical planning at the county level.

Assist COUNTY BOARD COMMITTEES, COUNTY OFFICIALS, COUNTY AGENCIES in their planning by:

- Providing basic research data and analyses on county-wide basis.
- Serving as staff to pertinent Board of Supervisors Committees.
- Assisting in the coordination of county-wide functions.
- Carrying out special studies and analyses for Controller or other county officials.
- Providing technical assistance on planning for all county-wide functions.
- Providing the framework of sound technical planning as the basis for improved planning, decision and action on all county-wide functions.
- Providing the basis for more effective coordination of county-wide functions with those of townships, villages, cities, and school districts.
- Providing the basis for more effective coordination with regional, state and federal agencies operating in the same fields as county-wide functions and for coordinating their various operations within the county.

Assist PRIVATE AND SEMI-PUBLIC INSTITUTIONS, FIRMS, INDIVIDUALS in their planning by:

- Providing basic research data and analyses from county-wide studies.
- Consulting with major development organizations and coordinating their activities with those of public agencies carrying on county-wide functions.
- Providing framework of sound technical planning at county level as basis for improved private and semi-public planning and standards of development.

Work toward planning on a regional basis for natural resources and other matters that extend beyond the county, coordinating county efforts with those of adjacent counties, townships, villages, cities, school districts, special districts and parts of watershed and other natural resource areas of which the county is part.

Work toward planning on statewide and national basis for those matters carried out by state and federal agencies which affect the character and quality of development in the county.

The Nature of Comprehensive Physical Development Planning

Comprehensive physical development planning provides sound, logical methods for assisting in the improvement and coordination of the many separate plans, decisions, and actions which actually create the physical development pattern of the county.

- The major basis for such improvement and coordination lies in the formulation of technical development plans and programs for the interrelated development of private, semi-public and public physical facilities.

- The ultimate effectiveness of such planning will be measured by its ability to persuade, convince and educate those who make the concrete decisions and act to carry them out in specific physical development programs and projects.

- This means that the plans and programs must be based on careful consultation with existing operating agencies, firms and individuals to insure full consideration of their separate needs and problems and best use of their detailed knowledge and experience.

- Thus, the planning agency is generally advisory. People or agencies are not forced to comply with proposed plans and programs. Compliance is accomplished through the effect of sound, realistic, technical proposals that convince through the logic of their consistent, rational, comprehensive and long-range approach to the problems and needs of the county.

An effective program for comprehensive physical development planning generally includes a competent technical planning program, an effective operational planning program, and a broad educational program. These three phases must be carefully woven together into an integrated overall program.

- The technical program is the core of comprehensive physical development planning. It includes basic research studies, and the formulation of development plans and programs. It must be based on realistic assessment of the potentials of future development, sound projections of future growth, and dynamic social and economic factors. Comprehensive, interrelated plans and programs for natural resource and man-made physical development provide the essential framework for improving and coordinating the planning and carrying out of better standards of public, semi-public and private physical development in the county.

- The operational planning program includes the more detailed planning of physical resources and facilities by operating agencies, firms and individuals and the administrative, regulatory and financial planning needed to bring the technical proposals to bear on the actual plans, decisions, and actions to carry out physical development in the county.

- The educational program is essential to increase the understanding of the aims and proposals of the technical and operational planning programs by officials, professionals, public and nonpublic leaders, and the citizens of the county. Such understanding is essential to the improvement and coordination of physical development planning and activities in the county and to the building of support for the comprehensive planning program.

ORGANIZATION FOR COMPREHENSIVE PHYSICAL DEVELOPMENT PLANNING IN KENT COUNTY

In order to carry out an effective program of physical development planning, Kent County will need to establish a planning agency with strong leadership involvement and support and with a competent professional staff. This will also require the provision of sufficient funds to finance a continuing planning program.

There are several alternatives available to Kent County as it faces the decision concerning what form of planning organization it will choose to carry out the needed physical development planning program. An unofficial area planning organization, a metropolitan planning commission, a regional planning commission, a city-county commission, a county-regional commission, a county planning staff, and a county planning commission are all possibilities to consider.

The major criteria for choosing between these organization alternatives will be:

- The nature of the physical development needs and problems and the type of planning functions needed in Kent County to deal with them.
- The kinds of leadership and support needed to initiate comprehensive county-wide planning in Kent County, especially in gaining acceptance from nonpublic as well as public leaders, agencies, and citizens.
- The kinds of professional staff competence needed, which will be determined primarily by the types of planning functions which the planning agency is expected or requested to perform.
- The financial requirements, which will be determined mainly by the kind and number of professional staff required.
- The sources of funds for the planning budget, which may be different for different forms of planning organization.

- The area of jurisdiction chosen for the planning program and agency.

- The probable relationship of the planning agency and staff to the existing structure of government, including the degree of responsibility to existing governments for its program and activities.

- The specific requirements of state laws which enable local units of government to establish official planning commissions.

These criteria will be discussed briefly on the following pages. Then the several organizational alternatives will be analyzed in terms of the criteria.

Planning Functions

The kinds of development problems which are already evident in Kent County are primarily those of the impact of new building development, its interrelationship with long-standing agricultural resource development, and the natural resource, public service, public finance requirements for the denser areas of building development.

In order to meet these physical development problems, as well as others that may arise in the future, Kent County needs to establish a planning agency that will take on the responsibility for looking at the full scope of past, present, and potential resource and building development in the county. Such an agency would state and analyze the basic problems, analyze the possible alternatives for current action and their probable consequences in the future, and bring these considerations to a focus in the form of specific recommendations for action by public, semi-public and private agencies, firms and families.

Such a development planning operation would involve several major types of planning function, all of which are essential to the task of providing effective guidance for sound and orderly growth and development in Kent County.

- The first type of planning function would be that of assisting existing county, township, city and school district officials and agencies in the improvement of planning for the various public services and facilities already being carried out and in the coordination of these public activities where their needs, problems, and effects tend to overlap.

- The second type of planning function would be that of assisting county, township, village, and city officials and agencies in the development of such public regulatory measures as may be needed in each area to set standards for the location, extent, and quality of the different kinds of physical development.

- The third kind of planning function would be that of assisting semi-public and private utilities, institutions, firms, families, and individuals in improving their individual planning for physical development, including continuing efforts to build better understanding and support for the rational, consistent, comprehensive and long-range approach of planning.

As a basis for carrying out the above types of planning function most effectively, a county-wide planning agency would need to carry out the following general development planning functions:

- Basic research studies on the economic, social, physical, and governmental conditions, trends, problems, and needs pertinent to the physical development of the county, including a continuing inventory of basic research data which would be available to all public, semi-public and private parties which would find such information valuable for their own planning.

- Formulation of county-wide development plans and programs, as statements of county-wide objectives, policies and standards for building and resource development, including specific recommendations for public, semi-public, and private development action. This is the major contribution of comprehensive physical development planning.

- Work with governmental, semi-public and private agencies in the surrounding region and with state and federal agencies which deal with matters affecting physical development in the county to insure that Kent County needs and plans are sufficiently considered in their planning and actions.

Physical development in Kent County is actually accomplished through the plans, decisions and actions of many public, semi-public and private agencies, firms and individuals. Effective county-wide development planning will depend upon persuading, convincing and educating people in the county for improvement and coordination of non-public as well as public development of land and facilities. In order to influence all types of development activities, the county-wide planning program will need the support of civic, business, industrial, and professional leaders as well as the leaders of the county, township, village, and city governments and the many school boards.

- For a new function such as county-wide development planning it may be necessary to insure the involvement and participation of nongovernmental leaders by including them in the organizational leadership of the new county planning agency. This would insure their increased understanding and support for the planning program by giving them a meaningful part in the direction of its activities and in the formulation of its plans, proposals, and recommendations.

- At the same time, the leadership of existing governmental units and agencies should also be directly involved, since their understanding, support and action will be required in order to improve and coordinate their planning for public services and facilities, to insure the adoption and enforcement of necessary regulatory measures, and to bring about the allocation of public funds for needed physical projects.

This need for active participation and involvement by both public and nonpublic leadership in the county raises difficult problems for determining the appropriate type of planning organization and its relationship to the existing government structures.

- On the one hand, the planning agency needs to work very closely with existing county officials and agencies to assist in the

improvement of planning for separate county-wide functions and in corridination where their needs, problems, and effects overlap. For this purpose there is definite advantage in having a competent planning staff fully responsible to an existing county board committee or county official.

- On the other hand, the planning agency needs to work closely with existing nongovernmental agencies, such as utilities, civic groups, industrial and business firms, professional people, and other semi-public and private agencies involved in physical development operations. For this purpose there is definite advantage in having a group of nongovernmental leaders involved in the planning agency, so they aan both provide support for the agency as its impact is felt in nonpublic development operations and can interpret the reactions, needs, and desires of their agencies and citizens of the county to government officials and planning staff.

The traditional way to resolve this kind of problem in local government in this country has been the establishment of a semi-independent commission or board to carry on the new function until its operations and effects are fully understoood and accepted in the community. Such an independent commission generally includes both governmental and nongovernmental leaders and a competent professional staff. Most cities, villages, townships, counties and regions in Michigan and across the country have chosen this form of organization in initiating a comprehensive planning program. A few of the larger cities have advanced from this form to an integrated departmental planning staff.

Staff Requirements

Just as the traditional programs of agricultural resource development have required cooperative extension, soil conservation and other specialists permanently located in the county, so a new program of physical development planning will require new specialists on a permanent agency staff.

It will obviously be impossible for Kent County to retain a permanent staff of experts representing all the areas of professional competence required to carry out the type of physical development planning program which has been outlined.

- This would require a huge staff of specialists in economics, sociology, public administration, hydrology, sanitary engineering, resource development, soil science, real estate, recreation, transportation, public welfare, and many other professional fields.

- Many experts from these fields are already available in Kent County; and some are probably retained by county agencies or local governments on a permanent or consulting basis to assist in the analysis of critical development problems. Professionals on various public agency staffs, experts from local colleges and universities, and professionals working in Kent County business and industry provide a considerable resource that has not yet been fully tapped to aid in so solving the problems of county-wide physical development.

- Some planning agencies have found it valuable to have outside agencies, university research bureaus or consulting firms carry out highly specialized studies requiring professional or expert abilities not critically needed on a permanent staff basis. Thus, special water resource studies might be carried out by state agencies, economic base or population studies by university agencies, or up-to-date soil surveys by the Soil Conservation Service.

Kent County needs professionals trained to draw from all of these fields and relate such specialized knowledge and experience to the combined physical development needs and problems of the county. Since the problems of building development are most critical, the urban or regional planner seems to be most appropriate for the professional planning staff.

- The trained and experienced urban or regional planner has developed approaches and procedures for bringing ideas, knowledge, information and methods together from a variety of fields and focusing this on the needs and problems of overall physical development in the form of development plans and programs which include specific recommendations for public, semi-public and private action.

- The urban or regional planner can make many of the basic research studies himself, with adequate staff, as well as understand and make use of more specialized studies and all available talents as they are needed.

- The urban or regional planner generally has experience in communicating his ideas and proposals effectively to officials, leaders, and citizens in ways that will persuade or convince them of the value of specific proposals as well as the general value of the rational planning approach.

The number of professional planners required on the permanent staff will depend upon the speed at which the program is expected to proceed, the amount of detailed planning assistance requested by county and local agencies, and the extent to which specialized studies are farmed out to other agencies.

- Generally speaking, however, a beginning county planning agency will need a planning director, about two other professional planners, a draftsman, and a secretary.

- The planning staff will tend to grow from this initial size as the value of its operation is recognized and as more detailed assistance is requested.

Financial Requirements

Initial estimates of the financial needs for a physical development planning agency for Kent County can only be made as rough approximations in this exploratory study. Since most of the costs are salaries for professional and clerical personnel, the prevailing salary levels in the professional planning field will be critical. These salary levels are changing every year, since the demand for trained and experienced planners still greatly exceeds the supply. Thus, any approximations made here may have to be altered, especially if any appreciable time passes before funds are available and professional planners are sought and hired for a permanent staff.

One way to estimate reasonable costs for a county planning program in Kent County is to survey expenditures by other Michigan counties for planning.

- Most metropolitan counties in Michigan have started by allocating about ten cents per capita for their county planning agency. This would mean an annual budget of about $36,000 for an initial planning staff and program in Kent County.

- Later on, as the need and value of such planning was recognized and the requests for service have increased, these Michigan counties have raised their county allocations to between 15 and 20 cents per capita. This would mean an annual allocation of between $50,000 and $70,000 for Kent County.

- Several Michigan counties have obtained additional funds from other sources.

Another way to estimate the potential costs of a planning program for Kent County is to add up the total estimated salaries and other costs that might be required for the initial staff needed to launch the county-wide planning operation.

- At current salary levels the total initial salaries would be between $34,000 and $40,000. A competent and experienced planning director could probably be hired

for $10 - 12,000. Two additional professional planners would probably cost $14-16,000 (total). A competent planning draftsman might cost $6 - 7,000. And an experienced secretary might be hired for $4 - 5,000.

- Office, equipment, materials, postage, telephone and miscellaneous items might run to about ten per cent of total salary costs, which would mean $3,000 - $4,000 per year.

- Thus, the initial annual cost might be between $37,000 and $44,000 (or about 10 to 12 cents per capita).

To compare these estimates briefly with the annual costs of planning agencies at the county level in other parts of the country, the American Society of Planning Officials reports that in 1960 the highest per capita cost was about 98 cents per capita (St. Louis County, Missouri), while the lowest was 6.6 cents per capita (Berks County, Pennsylvania). Two-thirds of the counties reporting had annual planning budgets of over 15 cents per capita.

In the long run the annual cost for a physical development planning program, agency and staff in Kent County will depend primarily on the functions that such an agency is expected or requested to perform and on the availability of funds. Such a planning agency should be expected to prove its value to the county over a period of several years, recognizing that there is now a considerable backlog of studies and planning to be caught up.

Sources of Funds

Most public planning agencies are financed initially by appropriations in the annual budget of the legislative body or bodies. In most cases this budget allocation remains as the principal source of funds for the payment of staff salaries and other costs. Other sources of funds have become more available recently.

The chief additional source of funds now available is federal matching grants for local planning assistance under Section 701 of the U.S. Housing Act of 1954, as amended in 1959.

- These funds are available on a 50-50 matching basis to official planning agencies in all cities, villages, townships, and counties with less than 50,000 population. In Michigan this local assistance has been available since April 1960, when the legislature named the state Department of Administration as the supervisory agency for this program.

- These funds are also available to official public metropolitan and regional planning agencies, as well as to agencies in specially-designated disaster areas. In Michigan these funds are <u>not</u> now available to official county planning commissions, due to technicalities in the state enabling act. This act may be revised so county commissions can obtain funds in the future.

- These "701" funds are available only for specific kinds of research studies and the formulation of plans and programs for community-wide physical development. Matching funds are <u>not</u> available for regular planning administration, which means that all of local planning budgets cannot be matched.

- Studies and plans must be carried out under the direct supervision of professional planners meeting training and experience qualifications which insure their competence in the field of physical development planning.

- Metropolitan, county or regional planning agencies can carry out studies and prepare plans under contract for local planning commissions, providing they have a supervising planner meeting the specified qualifications.

Many county planning agencies do special studies and detailed planning assistance for cities, villages, townships or school districts, charging for the materials, staff time, or both. Washtenaw County charged about $9,000 and St. Clair about $2,000 for such work in 1960. Most county agencies provide some general advice and service free of charge, but require payment for detailed studies or plans.

Some county planning agencies undertake special studies for other county departments. For example, the Oakland County Planning Commission did a special inventory and projection of land use and population for the county public works department in 1959, receiving $30,000 from that operating agency.

Some agencies have specialized studies done by state or federal agencies, which provide some or all of the staff time without charge. Thus, the Tri-County (Lansing) Regional Planning Commission is currently having a water resource study carried out by the state Water Resources Commission at no charge to the regional agency.

Planning agencies are also authorized to receive gifts or grants for appropriate purposes from civic organizations, business or industrial firms, utilities, institutions or private individuals.

A planning agency dealing with physical development needs and problems in Kent County might have jurisdiction in the metropolitan area only, throughout the entire county, or in a regional area larger than Kent County.

- A Grand Rapids metropolitan area might include the four cities and three townships of the metropolitan core or it could include both that core and six to eight additional fringe townships. Two to four adjacent townships in Ottawa County might also be included, since they are becoming a more definite part of the Grand Rapids metropolitan area.

- A county planning area would include both incorporated and unincorporated areas.

- A regional planning area might include Kent County plus adjacent parts of Ottawa County. A larger regional area related to water and other natural resources might include Kent County plus all or parts of several surrounding counties within the lower Grand River watershed.

A planning agency dealing with physical development needs and problems might be responsible to existing governmental bodies and officials in several ways:

- It could be purely staff agency with direct responsibility to a particular committee, official or agency now existing in the Kent County government.

- It could be a new, semi-independent county commission appointed by the county Board of Supervisors. Such a commission would probably be dependent on the Board for budget allocations and appointment of new members, but it would determine its own program, hire its own personnel, and form its own relationships with committees, officials and agencies of county, township, village and city governments, with school districts, and with semi-public and private agencies, firms and individuals.

- It could be a new regional planning commission responsible to several separate governments in the metropolitan area, the county, or in an area larger than Kent County.

- It could be an unofficial area planning organization with no direct responsibility to any county or local government.

Under Michigan laws there are two forms of official planning commission that can be established which are pertinent to county-wide physical development planning needs in Kent County:

- An official county planning commission, with definite semi-independent responsibilities and duties as established by Act No. 282 of the Public Acts of 1945, could be appointed by the county Board of Supervisors. Such a commission would have five to eleven members representative of various interests in the county, with less than half of its membership county officials.

- For any metropolitan or regional area an official regional planning commission, with broad independent responsibilities as permitted by Act No. 281 of the Public Acts of 1945, could be created by the legislative bodies of two or more local units of government. Such a commission would have no specifications for membership, but generally representatives are appointed by the various participating legislative bodies.

Organizational Alternatives

Assuming recognition of the need for some form of planning agency to meet the physical development problems and needs in Kent County, there are several major alternatives for the form of organization. These alternatives will be analyzed briefly here on the basis of the criteria already discussed, roughly in the order of their importance as relevant alternatives.

Unofficial Area Planning Organization:

An area planning agency without direct ties to either county or local governments could hire competent staff and carry out some of the basic research and development plan functions needed in Kent County. It could involve strong leadership and support from both public and nonpublic agencies and individuals. Such an organization would not have formal relationships with county officials and agencies, though strong working arrangements could be made. Federal matching funds would not be available for county-wide studies and plans, though this agency could work for local units on a contract basis. Although such an unofficial organization would probably not meet all the needs for physical development planning in Kent County, it might be valuable in building understanding and support for planning and in proposing alternatives to official planning proposals. Some larger cities and metropolitan areas have such organizations in addition to their officially established public planning agencies.

Metropolitan Area Planning Commission:

An official metropolitan regional planning commission covering the Grand Rapids metropolitan area (possibly including part of Ottawa County) might be established without participation by the Kent County government. (The Jackson Regional Planning Commission was organized on this basis.) The cities and townships of the metropolitan area would probably be the participating government units, appointing representatives and making annual budget allocations. Such a regional commission would have broad independent responsibilities under state law. Its responsibilities to participating units would be divided; and it would have no formal relationship to county board committees, county officials, and county agencies, although informal ties could be established. A metropolitan area commission

would not deal with the problems and needs of outlying cities, villages, townships and school districts, providing neither general advice nor detailed technical assistance to such outlying areas. This agency could receive federal matching funds for area-wide studies and plans, as well as contract to do studies and plans for local units.

Regional Planning Commission:

An official regional planning commission covering all of Kent County plus all or parts of several surrounding counties would provide a basis for studies and plans related to watershed area needs and problems. It would be responsible to a number of participating governments, with representatives appointed by local legislative bodies and annual budget allocations from each. (The Tri-County Planning Commission in Clinton, Eaton and Ingham Counties has this form.) It would be broadly independent of existing governments in determining its own activities and program. It would not tend to have close formal relationships with Kent County board committees, officials and agencies. Such a regional agency could involve strong support and leadership from public as well as nonpublic agencies and individuals. It would be able to obtain federal matching funds for region-wide studies and plans, as well as contract to do detailed studies and plans for counties, townships, villages and cities. Such a regional planning commission may ultimately be necessary for the lower Grand River watershed as public and nonpublic agencies recognize the need for a broader approach to natural resource problems.

City-County Planning Commission:

Although there is no provision under Michigan law for establishing a joint city-county planning commission with a single staff, it would be possible to set up a regional planning commission by joint action of the City of Grand Rapids and Kent County, covering all the incorporated and unincorporated areas of the county. (There are no such city-county commissions in Michigan, but there are in Ohio and other parts of the country.) Leadership and support could come from both public and nonpublic agencies and individuals within the city and county. It would be responsible to both governments within the framework of its broad independent powers under state law, with annual budget allocations from both governments. Such a commission, would replace the existing city planning commission, so the staff would work on both city needs and problems, as at present, and the physical development needs and problems of the rest of the county. Staff organization might recognize these two emphases by being divided into city and county sections, with overall coordination by the

director. Federal matching funds could be obtained for county-wide studies, as well as through contracts for more detailed planning for local units. There might be problems related to the perpetual question of whether the commission or staff were working more on city problems or those of outlying areas. There would still be the need for more detailed and specialized planning within the central city (including urban renewal, for example). The divided responsibility of the agency might make it difficult to work closely with county board committees, county officials, and county agencies.

County-Regional Planning Commission:

An official regional planning commission could be established by the county government and some or all of the cities, villages, and townships in the county. (The St. Clair Regional Planning Commission was formed by the county and the incorporated cities and villages.) Such a commission would be largely independent in determining its own activities, although participating government units would appoint representatives and make annual budget allocations. It would not have strong formal ties to county board committees, officials and agencies. It could obtain matching funds for county-wide studies and plans and contract to do studies and plans for local units. A county-regional commission could involve strong leadership and support from nonpublic as well as public agencies. It would not replace the planning commission and staff of the City of Grand Rapids. Its responsibilities would be divided between the several participating units. Since there are no specific legal requirements on membership, participating legislative bodies could appoint officials, members of local planning commissions, or civic, business, industrial or professional leaders.

County Planning Staff:

The establishment of a competent physical development planning staff responsible directly to a county board committee or the County Controller would provide for direct responsibility to county government and direct coordination with the financial and policy planning of the Board of Supervisors and the Controller. Such a staff would provide a definite step toward more effective and responsible county government. It would provide no direct involvement of nonpublic leadership, although a separate advisory committee (or even an official county planning commission) could be formed without staff but to act primarily as an advisory group. Such a county planning staff would be able

to work closely with existing county board committees, officials and agencies; but it would not have as direct ties to nonpublic agencies and firms involved in physical development. Responsibility within the county government could be to a permanent Planning Committee of the Board of Supervisors or to that committee through the Controller. There might be a tendency for such a staff to become involved in day-to-day functional and administrative planning, neglecting the basic research and formulation of development plans and programs which are the primary contribution of comprehensive physical development planning. This tendency might be overcome if the Planning Committee and Controller recognize the importance of these bases for effective planning. Such a staff agency might also not be as fully accepted as an independent commission and staff in dealing with local units of government or with semi-public and private agencies, firms and individuals as will be necessary in an effective physical development planning program. Federal matching funds would probably not be available, since this would not be an official planning commission formed under state enabling legislation. There is also some question as to the power of adoption of official county-wide development plans and programs, since these are established as responsibilities of the planning commission under state law.

County Planning Commission:

An official county planning commission, with its members appointed by the Board of Supervisors and annual budget allocations, is the normal form of planning agency organization for counties in Michigan. (Branch, Gratiot, Hillsdale, Isabella, Livingston, Kalamazoo, Macomb, Oakland, and Washtenaw Counties have this form of planning organization.) Such a county commission has semi-independent responsibilities under state law, though the county board retains control over membership appointments and budget allocations. It could involve strong leadership and support by both public and non-public agencies, although the official membership cannot be a majority. At present a county planning commission cannot obtain federal matching funds for county-wide studies and plans, but proposed changes in the state enabling law may make this possible in the near future. Although semi-independent, a county commission would have advisory responsibility to one single government rather than to several as for a regional or metropolitan commission. It could probably develop much closer working relationships with county board committees, officials and agencies than a regional or metropolitan commission though not as close as an integrated county planning staff. It could protect its important function of basic research and the formulation of development plans and programs, rather than get completely involved in day-to-day administrative and functional planning. This is the traditional kind of semi-independent commission formed in the initial stages of developing a new public function, especially one that will have major impact on semi-public and private development operations. Strong informal working relationships are important if this form is to provide needed planning help for county-wide functions and responsibilities of the county board, county officials, and county agencies.

WHAT OTHER MICHIGAN COUNTIES ARE DOING ABOUT PHYSICAL DEVELOPMENT PLANNING

Most of Michigan's metropolitan counties face development problems similar to those of Kent County. The Detroit area counties have experienced much more rapid growth and hence more complex and critical problems. Of the fourteen Michigan counties with more than 100,000 people in 1960, six have formed their own planning commission, while two others are parts of a regional planning commission area. Of the remaining six counties at least two are actively considering the formation of county or regional planning commissions.

- Wayne County (2,666,297) does not have a county planning commission. The Detroit Metropolitan Area Regional Planning Commission covers the four counties of Macomb, Oakland, Washtenaw, and Wayne. Basic research studies have been carried out on population, economy, employment, industrial location, recreation, water, highways, trades and services, building codes, land use, shopping centers, residential construction. Highway, land use and recreation area plans have been developed.

- Oakland County (690,259) formed its county planning commission in 1950. In 1960 the county allocation was $73,000 and there were nine regular staff members. Studies have been completed on retail markets, highways, and land use. In 1959 the county planning staff received $30,000 in addition to its regular budget to assist the new public works department by making an inventory and projections of land use and population.

- Macomb County (405,804) has had a county planning commission since 1956. The initial county allocation in 1956 was $20,000 for a staff of three. In 1961 the county planning budget was $65,000 and there were nine people on the staff. Studies have been completed on county government buildings, libraries, land use, soil characteristics, and census of school-age children.

- Genessee County (374,313) does not have a county or regional planning commission. Preliminary investigation did not uncover any recent county-wide planning studies or active movement for planning commission organization.

- Kent County (363,187) does not have a county or regional planning commission. This exploratory study is intended to assist in decision on a county-wide program.

- Ingham County (211,296) does not have a county planning commission. In the Lansing area the Tri-County Planning Commission, covering Clinton, Eaton and Ingham Counties, was formed in 1956-1957, with an initial budget of $2,500 (no staff). Ingham County allocated $20,900 and the other counties $6,100 to get the program started. In 1960 Ingham County allocated $30,000 and the other counties $15,000. These funds have been supplemented by $32,000 in federal matching funds during the three-year period, as well as over $50,000 in staff time by state agencies for special studies. A staff of two plus part-time help has carried out studies on functional organization, regional needs and problems, and physical development factors. Michigan State University agencies have been called on for economic-population base and trade-service area studies. State agencies are carrying on surface water study. A new director has just been employed and several new staff members will be added during 1961.

- Washtenaw County (172,440) has had a county planning commission since 1947. The initial county allocation at that time was $12,000 for a staff of one plus clerical help. In 1960 the county allocated $42,000, which was supplemented by about $9,000 in payments by local communities for specific technical studies and assistance. Studies have been prepared for the Ann Arbor and Saline areas.

- Kalamazoo County (169,712) formed its county planning commission in 1960. A new director has just been hired to formulate and carry through the program. The initial county

allocation was $19,000 for the first year. Drafting and secretarial help will be hired in the near future.

- Saginaw County (153,515) does not have a county or regional planning commission. Although possible formation of a commission has been discussed actively in the Saginsw area in the past, preliminary investigation did not uncover any recent county-wide planning studies or active proposals for planning commission organization.

- Muskegon County (149,943) does not have a county or regional planning commission. Preliminary investigation did not uncover any recent county-wide planning studies or any active proposals for planning commission organization.

- Calhoun County (138,858) does not have a county or regional planning commission. A county-wide development study was initiated in 1958. With the assistance of the Institution for Community Development at Michigan State University studies have been completed on population and government activities and finances. Studies are still in progress on land use and economic base. The county has allocated about $3,000 each year for this development study. A county planning organization is being considered.

- Jackson County (131,994) does not have a county planning commission. There is a regional planning commission in the Jackson metropolitan area, but it does not have county-wide jurisdiction. Preliminary investigation did not uncover any recent county-wide planning studies or active proposals for planning commission organization.

- St. Clair County (107,201) formed a county planning commission in 1951. This was replaced by a regional planning commission covering the county area in 1957. The initial county allocation was $12,000 in 1957 for a staff of one plus clerical help. In 1960 the county allocation $18,000, which was supplemented by $15,000 federal matching funds and about $2,000 in payments from local communities for specific technical studies and assistance. The 1960 staff included four people. Studies have been completed on population, economic base, drainage, sanitary disposal, water supply, parks and recreation.

- Bay County (107,402) has had a county planning and zoning commission since about 1955. The commission and ataff have been primarily responsible for the preparation and administration of the county zoning ordinance. Studies of industrial potential, natural resources, and a road and street directory have been carried out. In 1961 this commission was being reorganized as a regional planning commission covering the county.

Five Michigan counties under 100,000 in 1960 have formed county planning commissions since 1955. These counties do not have development problems as complex or critical as the metropolitan counties, but they have decided to begin their planning before such problems become critical so they can minimize or avoid some of the difficulties now faced by the more metropolitan counties.

- Livingston County (38,233) formed its county planning commission in 1956. The county allocated $10,000 for the first year's program. Subsequent allocations and activities are unknown at this time. The county Cooperative Extension Director also serves as director of the planning commission. He has additional staff assistance from another community development specialist from the county cooperative extension office.

- Gratiot County (37,012) formed its planning commission in 1960. Initial land use studies have been started. The county has allocated $ 3,000 for the first year.

- Isabella County (35,348) established a county planning commission in 1960. Initial land use studies have been started. The county has allocated $500 for the first year.

- Branch County (34,903) formed its planning commission in 1958. With the assistance of the Institute for Community Development at Michigan State University studies have been completed on population and economic base. Land use and government activities and finance studies are still in progress. The annual county allocation has been about $3,000.

- Hillsdale County (34,742) formed its planning commission in 1960. Preliminary investigation did not oncover the nature of its initital activities or budget.

ANNUAL BUDGETS FOR PLANNING COMMISSIONS IN MICHIGAN COUNTIES

	1960 Population	INITIAL YEAR Year	Allocation	Per Capita	1960 - 61 Total Budget	Other Funds	County Allocation	Per Capita
Oakland County	690,259				$73,000	-	$73,000	10¢
Macomb County	405,804	1956	$20,000	5¢	$65,000	-	$65,000	16¢
Ingham County*	211,296	1957	$20,900	9¢	$40,000	$10,000	$30,000	14¢
Washtenaw County	172,440	1948	$12,000	9¢	$51,000	$9,000[a]	$42,000	24¢
Kalamazoo County	169,712	1961	$19,000	11¢	$19,000	-	$19,000	11¢
St. Clair County	107,201	1957	$12,000	12¢	$35,000	$17,000[b]	$18,000	17¢
Bay County	107,402	1955						
Livingston County	38,233	1956	$10,000	26¢				
Gratiot County	37,012	1960	3,000	8¢	3,000	-	3,000	8¢
Isabella County	35,348	1960	$500	1.4¢	$500	-	$500	1.4¢
Branch County	34,903	1958	$3,000	9¢	$3,000	-	$3,000	9¢
Hillsdale County	34,742	1960						

* For Ingham County the figures indicate that county's allocation to the Tri-County Regional Planning Commission and two-thirds of other funds.

a $9,000 in payments by local units for detailed studies and plans.

b $15,000 in federal matching funds plus about $2,000 in payments by local units for detailed studies and plans.

CONCLUSIONS

Following are the major conclusions reached in this exploratory study of physical development problems and physical development planning needs in Kent County.

1. The physical development problems in Kent County which need urgent attention at this time are those related to the impact of continuing economic and population growth and increasing building development throughout the county. The interrelationships between this building development and long-standing agricultural resource development and the requirements of denser building development areas for natural resources, public services, public facilities, and public funds point to the need for establishing definite responsibility for planning to insure that further building development is given effective guidance for sound and orderly growth throughout the county.

2. To meet these present and potential physical development problems Kent County needs to establish a physical planning agency with responsibility for assisting existing governmental and nonpublic agencies in planning and coordinating their physical development activities. Such a planning agency should carry out the essential basic research studies needed to clarify the problems and needs; formulate sound physical development plans and programs, including advisory recommendations on specific action to be taken by public, semi-public and private agencies, firms, and individuals; and work with regional, state and federal agencies to insure that Kent County needs and plans are recognized in their planning and projects affecting the county.

3. There are two major organizational alternatives which would be appropriate for a county-wide physical development planning agency in Kent County. Either the traditional county planning commission or an integrated county planning staff can carry out the planning functions so urgently needed if the following important factors are dealt with properly:

    a. The planning agency and program should involve strong public and nonpublic leadership and support because of the impact on both public and nonpublic development operations and the assistance which an effective county-wide planning program can give to planning for both kinds of development.

(1) If a traditional planning commission is formed, this need would be met by the requirement that members of the commission shall be representative of important segments of the economic, governmental and social life and development of the county.

(2) If an integrated planning staff is formed, definite arrangements should be made for gaining continuing advice and support from the nonpublic leaders of the county.

b. The planning agency and staff has two major types of planning function to perform: continuing assistance on improvement and coordination of planning for existing public functions and the basic research and formulation of development plans and programs which constitute the major contribution of physical development planning.

(1) If the county planning agency is formed as a normal county planning commission, both commissioners and staff will need to recognize the importance of working closely with county board committees, county officials and county agencies as well as on the basic research studies and development plans and programs.

(2) If the county planning agency is formed as an integrated planning staff reporting directly to a permanent Planning Committee of the Board of Supervisors or to the County Controller, both the Planning Committee and the Controller will need to recognize that the chief long-run value of the planning staff lies in its basic research and plan formulation functions which can provide a firm basis for assistance on improvement and coordination of planning for existing county-wide functions. This means resisting the temptation to assign the county planning staff so fully to functional planning, administrative planning, or highly specialized studies that there is not time to carry out the fundamental research and development planning functions.

c. The planning director should be a competent planner with experience in the needed types of physical development planning function; and he should recognize the needs and problems of directing an agency which must provide continuing assistance for existing county-wide functions as well as carrying out the fundamental research and development planning.

4. The Kent County Board of Supervisors should allocate at least $36,000 for the first years' operation of its new county planning staff or commission. Public and nonpublic leaders should support action by the state legislature to make federal matching funds available to county planning commissions. Local units of government should explore the possibilities of having the new county planning staff carry out detailed studies and plans for them under the federal matching program.

5. The new county planning staff or commission should be given considerable freedom in working out its program of activities. Although it might fruitfully start from some of the suggestions made in this exploratory study, it should not be limited to all of these suggestions. The planning staff and/or commission will soon be in a much better position to develop the details of an appropriate planning program than was possible within the limitations of this exploratory study.

SOME QUESTIONS AND ANSWERS ABOUT A
COUNTY-WIDE PLANNING PROGRAM

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1. HOW MUCH WILL IT COST?

If Kent County follows the pattern of several other metropolitan counties in Michigan, the initial county allocation might be about 10¢ per capita or $36,000. Later on, depending upon the kind and extent of services the county planning staff is asked to perform, after it proves itself as a valuable asset to the county, the total planning budget might reach as high as $90-100,000. This larger amount, however, would probably not all come from county allocation, since as much as 1/3 to 1/2 might come from payments by cities, villages, townships, school districts, and other local agencies for specific technical assistance or from federal matching funds either directly to the county planning agency or to the local units.

2. HOW WILL THIS COUNTY-WIDE PLANNING AFFECT THE PLANNING OF LOCAL UNITS?

County-wide planning will not replace the planning of local units. As a matter of fact, one of the primary purposes of county physical development planning is to provide both better information and the advantage of more coordinated planning and operations at the county level which can assist all local units in doing a better job of their own planning. The county-wide planning program would not include detailed planning for city, village or township areas unless this was requested by the local unit and there were sufficient staff resources available. In any case, the county planning agency and staff would work closely with local governmental units and planning agencies on any matters affecting their local areas.

3. WHO WILL PAY FOR THE SPECIAL TECHNICAL ASSISTANCE FOR LOCAL UNITS?

It is possible for the county government to allocate sufficient funds to pay all the costs of sufficient staff and other resources to provide detailed technical assistance to all local units requesting help. However, most counties seem to provide only limited technical assistance to local units free of charge. Some county planning agencies charge

local units for the costs of materials, others for labor plus materials when special or more detailed studies, mapping, planning assistance is provided. There is definite precedent for charging local units for such technical assistance--and the cost would still be considerably less than having it done by outside consultants. In addition, most cities, villages, and townships in Kent County are eligible for federal matching funds for planning assistance on detailed studies and plans, and they could contract with the county planning agency to have such work done. In this case the local unit would pay half and the federal government half, and the county agency could add staff sufficient to handle its regular county-wide responsibilities and also provide the requested detailed local assitance.

4. WHAT CAN COUNTY-WIDE PLANNING DO FOR MY TOWNSHIP, VILLAGE OR CITY?

County-wide planning can assist existing county agencies in their continual efforts to insure that county funds are spent more effectively in meeting the needs and problems of the people of the county. It can provide better information and general assistance to local governments and planning agencies as they carry out their own planning and operations. Cities, villages or township which need detailed and continuous technical assistance on their own development planning may be able to call on the county planning staff for competent, professional help, probably with payment of part or all of the costs of such help. County-wide planning can help the various school districts do a more effective and economic job of planning and carrying out their educational building programs. For those areas which feel they do not as yet have critical problems requiring planning assistance, the county-wide programs can provide assurance that county-wide functions are being coordinated more effectively and the example of what can be done about some of the problems such areas will probably face in the future.

5. HOW CAN COUNTY-WIDE PLANNING HELP OUTLYING, FARMING AREAS?

Farming areas are experiencing building development and the influx of nonfarm families, though not as rapidly as the metropolitan, city, and village areas. County, state and federal programs to assist farmers in solving their agricultural problems have been very successful, but are not prepared to provide similar help in solving the problems of building development and the demands of nonfarm people. A county-wide planning program with competent and experienced specialists in these new kinds of problems can assist outlying townships in determining appropriate preventive action

to bring these newer problems under control before they require costly corrective action. For example, denser areas of building development eventually require costly water supply, sanitary sewage disposal and storm drainage systems. When and if these are required in farming areas, some of the costs may have to be paid by farmers as well as the inhabitants of the more densely built-up areas. And such utility systems are especially uneconomical and costly if they have to be built for small development areas.

6. HOW CAN COUNTY-WIDE PLANNING ASSIST IN MAINTAINING ECONOMIC GROWTH?

Continued growth and development of business and industry is critical to Kent County's tax base. General improvement in the tax base provides additional revenues to county and local governments. Improvement of employment conditions will also decrease the county welfare load, which now takes between one-fourth and one-half of the annual county budget. County-wide planning is no panacea for the economic development of Kent County, but it can assist directly in programs to encourage existing industry to expand or stay in the county and new industry to locate here. County-wide industrial studies can determine where appropriate industrial land is located, what facilities need to be provided, what conditions existing or new industries will require, and bring together all pertinent information for an industrial development program. County-wide development plans and capital improvement programs will assure potential industries and businesses that Kent County seriously intends to meet the needs and problems of its firms, institutions, and families in the future, which soundly-managed industries are coming more and more to consider in their plant location decisions.

7. WHAT WILL HAPPEN IF THERE IS NO COUNTY-WIDE PLANNING IN KENT COUNTY?

It is almost impossible to predict exactly what would occur if Kent County continued to grow without establishing some form of county-wide planning agency. However, on the basis of recent experience in Kent County and experience in other areas of Michigan and across the country, it seems reasonable to say that the various physical development problems which have increased in number and seriousness in the county over the last ten years would continue to grow. The costs of public operations, by county agencies, cities, villages, townships, and school districts would show the effect of such problems even more than today. More local governments would pay sizeable consulting fees for engineering studies

based on insufficient area-wide planning and even for development planning studies. And, in the long run, failure to act within the county to meet these problems might mean a migration of some planning functions and responsibilities to a higher state or federal level as has happened with other activities in the past.

8. WILL COUNTY-WIDE PLANNING MEAN FORCING PEOPLE TO COMPLY WITH PLANS?

The effectiveness of a county-wide planning program depends primarily on persuading, convincing, and educating those who make decisions about physical development and carry them out. The major contributinn of county-wide planning is the preparation of sound, logical, technical programs that convince people of their value through the logic of their consistent, rational, and long-range approach to the problems and needs of the county. A county-wide planning agency cannot force government units or people to comply with its proposals, since any public action must be taken by county or local units as required under state law. However, some measures may be recommended by such a planning agency which would require the establishment of regulations setting standards for physical development in order to solve current problems or minimize those which might arise in the future. For example, the recent county sewage code, the zoning ordinances already enforced by several local governments, and platting regulations might proposed. But such measures can only be adopted and enforced by official county, township, village or city agencies, through regular legal procedures which protect the rights of property owners and citizens of these areas.

9. HOW CAN COUNTY-WIDE PLANNING ASSIST IN GUIDING STATE AND FEDERAL PROJECTS?

One of the best ways to influence state and federal plans and decisions (on highways, colleges, water pollution) is by being prepared with adequate plans and programs which reflect important considerations from the county point of view to propose when specific state or federal projects or programs are in the offing. A county-wide planning agency could make a point of keeping abreast of such state and federal activities as might affect physical development in Kent County and make sure that county-wide development plans are made part of the basis for decisions on such activities in the county.

10. WILL COUNTY-WIDE PLANNING MEAN MORE STUDIES WITHOUT ACTION?

The urgent need in Kent County is not just for more studies and information. What is more critical at this point is the establishment of an organized procedure for analyzing the problems and needs of the county, determining and obtaining what additional information is actually needed, analyzing the situation and all realistic, practical solutions, and making specific recommendations for action by public, semi-public and private agencies. At present there is no agency, public or otherwise, in Kent County with responsibility for this critical job. This would be the primary function of a county planning agency. Kent County needs such a county-wide planning agency and program with a competent professional staff, just as in the past Kent County needed agencies, programs and staffs for agricultural extension, soil conservation, road construction, social welfare, and the many other specialized functions now carried on by the county. The county planning function carries the additional value that it can help all existing county and local agencies do better jobs at determining how to make best use of public funds allocated for those purposes.

11. HOW CAN COUNTY-WIDE PLANNING ASSIST IN SCHOOL PLANNING?

As for many other functions, basic county-wide research and planning can provide more information and a better picture of the probable areas, amount and timing of future residential, commercial, industrial and public development which is essential to realistic school plant planning. A county planning agency could also assist in developing meaningful county-wide policies and plans for school district boundaries, sites, and finances, which would serve as advisory recommendations to the county Board of Education, School Superintendent and individual achool boards as to what would be desirable from the county-wide point of view and could be used as criteria in judging specific proposals. Also, by assisting the local government units in doing a better job of planning, a county planning agency would indirectly benefit school planning, since school districts could then plan on the basis of both better understanding of the process of development in their districts and better assurance that such development will be guided in an orderly fashion.

12. WHAT ARE THE BENEFITS OF COUNTY-WIDE PLANNING?

Most of the benefits of sound physical development planning are both long-run and intangible--or at least difficult to put in measurable monetary terms. On the whole it is safe

to say that, while good planning will not necessarily lead to lower taxes, it will assist in getting better value for what money is spent on both public and private development. Sound development generally means more stable tax base and the opportunity to plan and construct public facilities more efficiently and to operate them at lower costs. Initially, at least, effective county-wide planning may bring to the point of decision and action a considerable backlog of things that need to be done and that cost money, so it would be unrealistic to expect that county expenditures would go down merely because of money invested in a planning program. But, a county planning agency could provide direct assistance in the development of a practical and effective capital improvements program, designed to establish a sound scheduling of county public works projects carefully worked out in relation to expected county revenues. In urban or suburban areas certain fairly direct savings can be achieved through locating and buying properties for schools, parks, public buildings, streets, parking, etc. before it is subdivided and at costs far less than after subdivision or especially after they are built-up. And certain other fairly direct savings can be assisted by good planning by increasing the coordination between county and/or local operating units, such as providing water-main of sufficient size (or sewer main) to serve the next outlying unit when it develops sufficiently to need such facilities. Other savings can be assisted by providing a sound basis for estimating how large such underground main and sewers should be to serve probable future development as well as that which exists at present, so that four inch water main do not have to be taken up or replaced within a year or two because of the need for larger capacities. Good planning can also help in getting such facilities extended to new development areas which are clearly going to need urban services so that private firms or families do not invest in private wells or disposal systems which have to be abandoned a few years later. For outlying townships good planning can assist in guiding some development into denser areas where it will be economical to provide such urban services and keeping the rest of the township free of congregations of development which would need such services. A county-wide planning agency obviously cannot accomplish all of these desirable effects of good planning by itself, but it can encourage and assist all county and local governments and agencies in doing a better job of their own planning; and it can build better understanding and support throughout the county for effective planning at all levels in the county.

13. HOW WILL A COUNTY PLANNING AGENCY FIT INTO THE COUNTY GOVERNMENT STRUCTURE?

This depends upon the form of organization established for the county planning agency. If it is formed as an official county planning agency, the membership would be appointed by the County Board of Supervisors with less than half of that membership being county officials. Such a planning commission would be semi-independent, since it would have certain responsibilities and duties under state law, could hire and fire its own employees, receive outside grants and gifts of funds, etc. In most cases such a county planning commission would be mainly dependent upon the County Board for its budget. Staff members would be resonsible to the Planning Commission, not directly to the County Board or any County official, although in most Michigan counties such staff seems to work very closely with existing county agencies and officials, including pertinent committees of the Board of Supervisors. If established as a regional planning commission, the agency would be responsible both to county and city, village and/or township governments, so would be somewhat more separated from and independent of the county government structure. A county planning departmental staff, without a planning commission, could be more an integral part of the county government structure, but within the complex framework of Michigan county government it is difficult to decide to whom the staff would report and the agency might not be able to work as freely with local units, county agencies that are also somewhat independent, utilities, and other semi-public and private agencies involved in development planning and operations.

14. HOW WOULD COUNTY-WIDE PLANNING OPERATE?

A county planning commission is not an action or operational agency--it is purely advisory. It builds no buildings, installs no sewers or water main, operates no schools, inspects no new houses or septic tanks. Decision and action to improve the standards of physical development are dependent upon county and local government agencies, state and federal agencies, semi-public and private organizations, firms, families and individuals who take the specific actions which alter or build the physical elements of the community. However, a major objective of county-wide planning is to do more than just make studies and then make this information available to those agencies which can act. County-wide planning can, and generally does, also analyze, diagnose and project the basic research information in ways that lead more directly to useful and constructive action. A county planning agency can best serve this purpose by stating the problems clearly, outling the objectives, clarifying the

alternatives and their probable consequences, and recommending which alternative is best in the given circumstances on the basis of past experience and professional judgment. A county-wide planning program can serve to press continually for decision and action on matters affecting physical development. Thus, a major emphasis in such planning is to design studies and research toward reaching recommendations for decision and action. But the actual decision and action must be by existing agencies.

15. DOES THIS INVOLVE A COUNTY DEPARTMENT OF PUBLIC WORKS?

A county planning agency is <u>not</u> a public works department. It will not actually design and carry out the construction, operation and maintenance of water, sanitary sewer, storm drainage and other public works projects. However, a suitably-staffed planning agency can assist county board committees, local government units, and existing agencies in determining whether or not such a department of public works is the best solution for existing and potential future needs and problems. Whatever solution is decided upon, the county planning agency can be of very real assistance in providing basic inventory, analysis and projection studies to determine the scope, type, timing, location, and other general characteristics of various public works which are needed before detailed engineering design can be productive. Above all, a county planning agency can provide a coordinated and comprehensive picture of existing and potential future development throughout the county, which can lead to considerable savings in the long run on any kinds of public expenditures for such public works.

16. WHAT IS THE RELATIONSHIP BETWEEN THE COSTS AND BENEFITS OF COUNTY-WIDE PLANNING?

County-wide planning assumes both a new planning function which is not at present being carried out in Kent County and assistance to various county and local agencies in improving the planning they are already doing. In a manner of speaking, the full job of effective physical development planning provides a kind of insurance, for which the rates are just a minor fraction of the total amounts of investment involved. Public, semi-public and private expenditures for physical development in Kent County will be tremendous in coming years. It is not unusual to pay 5% to 6% for the architectural or engineering design studies for various kinds of physical facilities. Is it unreasonable to spend another 1% for basic planning studies, analyses, projections, which can improve on the basic assumptions behind the 5% to 6% architectural or engineering fees and

the 100% construction and development costs? County-wide planning can provide the framework of the interrelated population-economic-governmental-physical factors affecting such development. The present lack of such a framework may mean that some current development and construction expenditures are being wholly or partially wasted in terms of ultimate needs and problems. Probably no amount of planning can avoid this completely, but such waste can be minimized. From another point of view, county-wide planning can help both county and local agencies in the assessment of the probable future costs of various forms of physical development as a basis for determining appropriate action to minimize costs in the future. For example, the costs of public services and facilities to small groups of homes may run higher than the actual public revenues from such areas, even including state and federal aid. Where this is true it might prove desirable to encourage building development in patterns that will permit more economical public operations. Studies of cost per pupil of school operation and buildings in various areas might also be related to patterns and densities of development to determine whether or not there may be practical and acceptable solutions to these problems, or rather whether or not action can be taken that will avoid or minimize such problems in the future.

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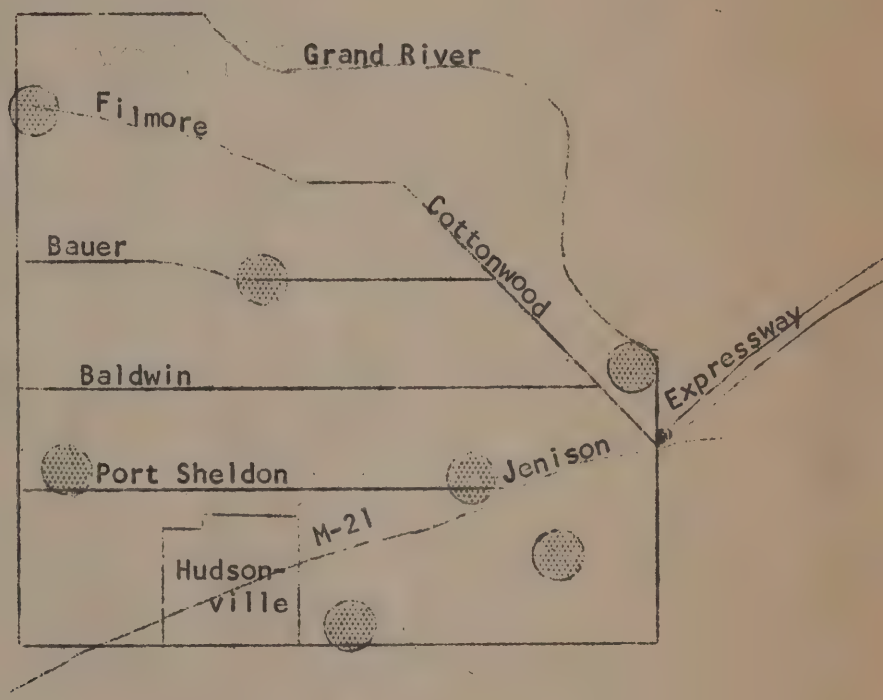
INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

GEORGETOWN TOWNSHIP PLANNING STUDY

"PARKS AND RECREATION STUDY"



Prepared by
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Urban Planning Specialist

Field Report No. 107

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MICHIGAN STATE UNIVERSITY

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Park and Recreation Study
Georgetown Township
Ottawa County, Michigan

INTRODUCTION

The purpose of recreation is to "recreate" an individual child or adult, either through his own effort or that of a group by presenting the opportunity to play, relax and get physical and mental exercise. The purpose of public park and recreation areas in an urban or urbanizing community is to grant the greatest assurance that areas strategically and conveniently located and developed to satisfy the recreation needs of individuals and groups will always be present. This latter, however, does not presume a "fixation" of both location and development of park and recreation areas. Rather, it denotes the needs of the times, and, as the years past, adjustments in the form of changed location or character of development of park locations may be necessary to more satisfactorily meet the needs of the community.

This report on "The Park and Recreation Areas of Georgetown Township, Ottawa County, Michigan" has been prepared by the Facilities Committee of the Georgetown Township Development Study Group with the help of Robert B. Hotaling, Urban Planning Specialist of the Institute for Community Development, Michigan State University. Basic data for mapping and preparation of other graphics for this report were gathered by the Facilities Committee. Subsequently an analysis of the data and discussions on it were held by the Township Board, Planning Commission, Study Group and others, including representatives from the various school districts in Georgetown Township. The following is generally the consensus of the findings and judgements of the Study Group with the inclusion of some technical information by the Specialists from the Institute.

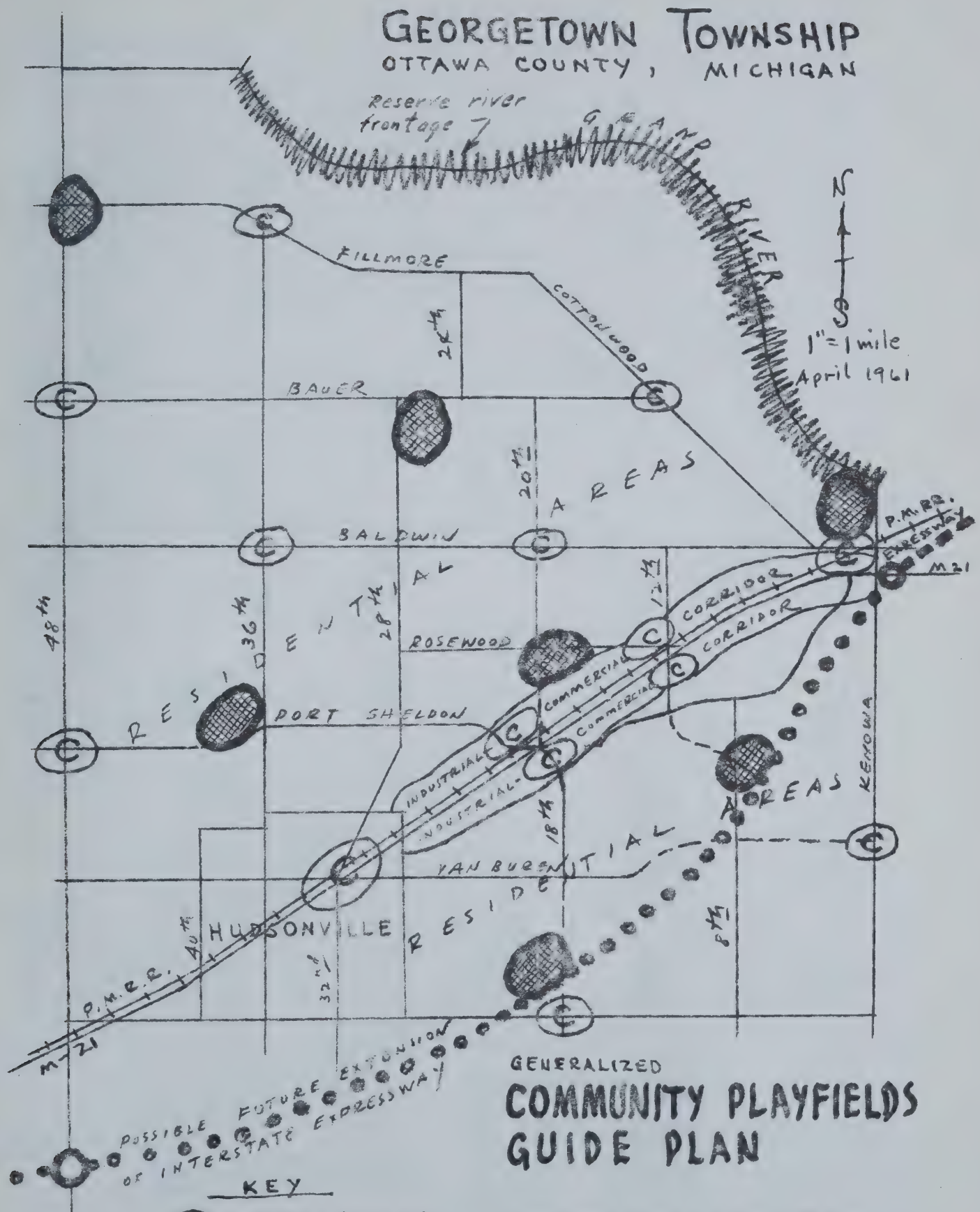
BACKGROUND

In order to prepare this park and recreation guide report the Facilities Committee relied on the previously prepared Land Use Report for the Township. The basic consideration in this instance being that the included Land Use Guide Plan gave a clear indication of where present children and adults--the recreation area users--are located and additionally where the future population would be located in yet to be developed residential areas. Areas for industry and commerce were also designated on this Land Use Plan. It was assumed that these areas would not require direct "child and adult family type" recreation areas and facilities. In other words these areas could be excluded from the service range of the park and recreation areas to be provided by the Township over the years to come.

It was also important to work with the committees evolving the Circulation Guide Plan (streets and highways) for the Township. The basic relationship in this instance being to take into account the affect of future major streets in both locating the park and recreation areas in terms of making them conveniently and safely accessible and therefore usable by the children in the community. It was also possible to more appropriately relate park areas to other land uses in the immediate neighborhood. Thus the resultant "Guide Plan for Playfields and Neighborhood Parks" (or school--parks) was able to be more realistically determined in accordance with future plans for both land use and circulation.

GENERAL RECREATION NEEDS

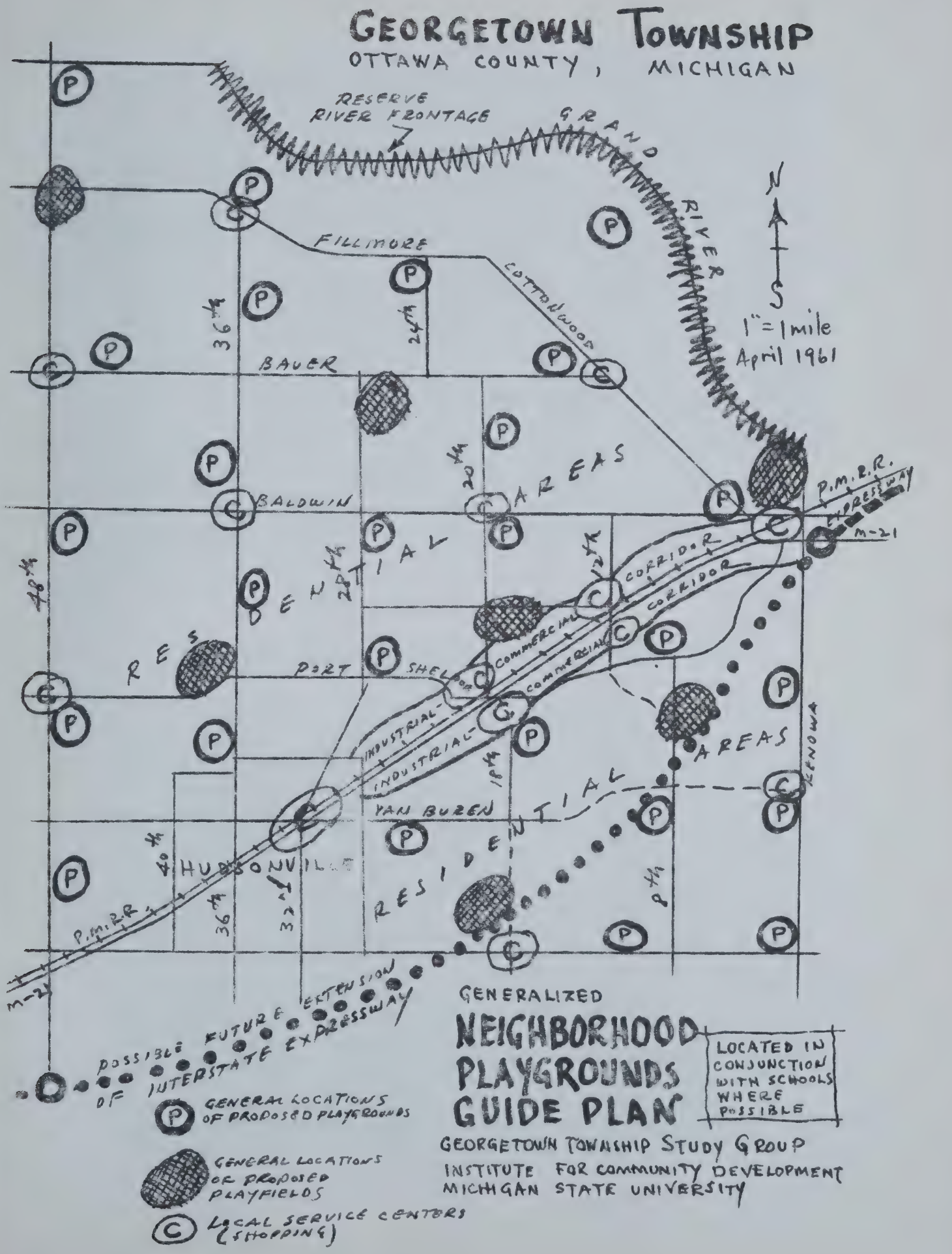
In general Georgetown Township as a part of the Grand Rapids Metropolitan Area is functioning as a residential community--a family housing area for people who work outside the Township but in the metropolitan area. In general the Metropolitan area has over the years in the older established cities and suburban townships developed public recreation areas and other recreational facilities which are "available" to the residents of Georgetown Township. As an example, Kent County has developed a very fine County Park System. Ottawa County similarily has a park system which includes one of its potentially finest parks right in



GENERALIZED

COMMUNITY PLAYFIELDS GUIDE PLAN

GEORGETOWN TOWNSHIP STUDY GROUP
INSTITUTE FOR COMMUNITY DEVELOPMENT
MICHIGAN STATE UNIVERSITY


GEORGETOWN TOWNSHIP
OTTAWA COUNTY, MICHIGAN
RESERVE RIVER FRONTAGE
GRAND RIVER
FILLMORE
LOTTA WOOD
BAUER
BALDWIN
PORT SHELDON
VAN BUREN
HUDSONVILLE
RESIDENTIAL AREAS
COMMERCIAL CORRIDOR
INDUSTRIAL
P.M.R.R.
EXPRESSWAY
M-21
KENOWA
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S
1" = 1 mile
April 1961
GENERALIZED
NEIGHBORHOOD PLAYGROUNDS GUIDE PLAN
LOCATED IN CONJUNCTION WITH SCHOOLS WHERE POSSIBLE
POSSIBLE FUTURE EXTENSION OF INTERSTATE EXPRESSWAY
GENERAL LOCATIONS OF PROPOSED PLAYGROUNDS
GENERAL LOCATIONS OF PROPOSED PLAYFIELDS
LOCAL SERVICE CENTERS (SHOPPING)
GEORGETOWN TOWNSHIP STUDY GROUP
INSTITUTE FOR COMMUNITY DEVELOPMENT
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the Township in the vicinity of Bauer Road and 28th Avenue. These recreation facilities should be considered just as much a part of the available recreation outlet for the people of Georgetown Township as those which must necessarily be located "closer to home". It was therefore felt that the general framework for determining recreational needs within the Township was generally in the area of providing conveniently located neighborhood parks and community playfields of adequate size. In addition, the Grand River, forming the northerly boundary of the Township, provides six to seven miles of river shoreline for possible river front recreation development. It was determined that it would be wise to reserve as much of this river frontage as possible. Much of the river frontage is subject to flooding anyway. It was felt that either through zoning setbacks from the river's edge, through the adoption of subdivision regulations or possibly by reservation and dedication this river frontage could be retained and developed as needed in the future years. Within this general approach the Study Group in cooperation with the Institute developed the attached maps entitled "Generalized Community Playfields Guide Plan" and "Generalized Neighborhood Playgrounds Guide Plan".

RELATION OF RECREATION AREAS TO SCHOOL SITES

Of particular concern to the Study Group was the relationship of present and future school sites and recreation areas in terms of possible cooperation between the Township and the school districts in order to acquire and develop combined school-park areas. The purpose being to combine the two very closely allied activities of education and recreation, where education through its physical education needs and recreation through it playground needs, might be combined to the advantage of both cost to the tax payers and facilities provided. In this regard a combination school-park area developed as a single unit with the School Board administrating the education-physical education programs and the parks administrating the recreation programs could use the same facilities and thus maximize the return from the facility and the dollars of investment necessary to build it. This would mean considerable savings to the tax payers in terms of the cost of capitalizing school and park developments in the first place and subsequently the operation and maintenance cost later on and for many years to come. The basic division of responsibility would be

that the school board would own the school site and the Township Park Commission--(not yet in existence) would own the playground portion of the site. The School Board would administer, operate and maintain the school building facilities. The Park Commission would maintain the grounds around the school as well as the playground area. In essence the school board would contract with the Park Commission to accomplish the latter. There was unanimous agreement of representatives from the various groups participating in the discussions on this point. To accomplish it, however, it would be necessary for the Township Board to establish and appropriate funds to a Park Commission in order to purchase park lands in cooperation with School Boards who will coincidentally be acquiring school sites adjacent to park lands. Also development programs to provide adequate facilities on the sites and contracts for the subsequent maintenance of the sites would have to be worked out. There are many examples of the success of this kind of a school-park cooperative effort in many communities in Michigan as well as elsewhere.

RECREATION AREA STANDARDS

A well planned recreation program for Georgetown Township should be aimed at serving all age groups from the pre-school child through all ages of children and adults. Recreation areas should be located so as to conveniently and safely serve the people located within the designed service area of the facility. This would include consideration of the sizes of the groups to be served or the numbers of people to be served and the distance that children and adults will have to travel to make use of the recreation area. Wherever possible recreation sites should be multi-purpose and should be located in direct relation to existing or proposed school locations.

Community Playfields should be designed to serve persons 15 years of age and older, provide one acre of playfield to each 800 population, should be a minimum of 10 acres in size and be within 1 to 1½ miles of the people it will be serving.

Neighborhood Playgrounds should be provided to serve children ranging from pre-school through 15 years of age, provide 1 acre per 1,000 in the area it is

serving, have a minimum size of 3 acres, be within about ½ mile of the people it will be serving and wherever possible developed in conjunction with an elementary school.

River Front Recreation Areas should be located where ever possible along the Grand River on 4 or 5 parcels of immediately adjacent lands above the flood level of the River as well as on most, if not all, the land subject to flooding. They should be located wherever possible, so as to have direct street access from Cottonwood or Filmore Roads. Recreation facilities such as picnic parks, boy and girl scouts camping facilities, possible water related activities (once sufficient pollution of baitment of the river has been accomplished), bridle trails for horseback riding, nature trails, natural areas, wild life areas, possibly a golf course or two, scenic spots and outlooks, and other to be determined recreation activity facilities. The public reservation or dedication of river front areas has the duel function in an urban or urbanizing community of providing not only recreation possibilities but also very practically it provides for the reservation of the same lands for utility easements (storm drainage and sanitary sewers).

Special Recreation Areas, in addition to the previously listed Community Playfields, Neighborhood Playgrounds and Riverfront Recreation Areas, important to Georgetown Township may include botanical or flower gardens, golf courses, landscape parks, boulevard parkways, zoological parks, monument or special memorial parks, building mall parks, nature study parks, open space parks, street intersection parks and many others. There are no specific standards for these types of parks. However, as the need or opportunity arises for realizing one of these parks, an alert aggressive Park Commission can often add these desirable features to the community.

RECREATION FACILITY STANDARDS

The following listed standards are general guides to the provision of special types of recreation facilities:

- Softball fields--one per 3,000 population or less
- Baseball fields--1 per 6,000 population or less
- Tennis courts--1 per 2,000 population or less
- Recreation buildings--1 per 20,000 population or less
- Auditoriums--1 per 20,000 population or less (maybe in connection with a school)
- Swimming pools--enough swimming pools to take care of 3 per cent of the population at one time (possibly developed in conjunction with a senior high school)

Facilities At A Typical Neighborhood Playground

In general the following facilities should be included in the development of a neighborhood playground:

- An exclusive area for pre-school (0-5 years of age) children
- A multiple use paved area for court games and skating
- Playground apparatus including swings, jungle gyms, and so forth
- Open lawn area for informal organized group play
- Field for softball
- Shelter building with toilets
- Attractive landscape setting.

Facilities At Typical Community Playfields

The typical community playfield will usually include most of the following:

- Baseball field
- Softball field
- Tennis courts
- General playfields for touch football, soccer, speedball, and informal or low organized group games
- Football field
- Court game areas for horseshoes, shuffleboard paddle tennis, handball, squash and so forth
- Childrens apparatus areas
- Ice Skating areas
- Sledding and tobbaganing hills
- Outdoor Amphitheatres for summer concerts, amateur plays and similar events
- Attractive landscape setting.

CONCLUSIONS

From the standpoint of the amount of recreation area presently available in the Township, Georgetown Township should think seriously about following through on an overall acquisition of site and development program through the cooperation of the Township Board (Park Commission) and the various school boards in the Township.

As the Park Commission and School Boards see development occurring in potential neighborhoods, as defined by the "Guide Plan for Land Use", the "Guide Plan for Community Playfields" and "Neighborhood Playgrounds". Any immediate program of acquisition of an adequate playfield or playground should be realized as soon as possible. Subsequently, when development has reached a level which requires specific facility development of the site, funds should be appropriated to accomplish this.

The orderly growth of Georgetown Township envisions neighborhoods developing northwesterly and westerly of the present Jeninson area. This clearly indicates the need for Georgetown officials and citizens to be thinking of acquiring and developing recreation areas in accordance with the "playfield and playground guide plan" in the immediate future. Similar areas along Port Sheldon Road in the southeasterly portion of the Township may also be necessary in the near future.

Wherever possible the Park Commission and School Board having jurisdiction in specific areas of the Township should cooperate in the acquisition and development of combined school-park sites.

It is important to provide convenient and safe access for every child and adult to a developed public recreation area in the Township.

Facilities in the recreation areas provided by the Township should provide opportunities for both those activities considered to be more inactive or passive in nature as well as those of a more active type.

A balanced recreation program serving the needs of all children and adults in the Township should be undertaken with regard to activity needs and toward improving present and future sites and installing needed facilities and equipment.

The Township Board should in the immediate future establish a Georgetown Township Park Commission and appropriate necessary funds, as progressively needed, for the acquisition, development, maintenance and operation of Township recreation areas.

The Township Board, School Boards, Planning Commission, Park Commission and all other Township and School District agencies, organizations and individuals should take into account probable future recreation requirements and cooperate in acquiring and developing recreation areas cooperatively in accordance with and agreed upon Guide Plan and Capital Improvement Program.

A policy should be decided and expressed through the Guide Plan, Zoning Ordinance, Subdivision Regulations and any other means so as to encourage subdividers, large land owners and so forth to help meet anticipated future school and recreation needs by donations of land or money.

vb/

APPENDIX A

Public and Semi-Public Areas
Survey Form

Assessor's code number_____
Address_____
Name of owner (s) _____
Name (s) of occupant(s) or building_____
Number of years at present address_____
Type of public or semi-public use or service_____
Number of employees_____
Number of members in organization_____
Average size of group using the facilities_____
Maximum size of group using the facilities_____
Use of facility:
a. Average number of hours per week_____
b. Average number of days per week_____

Type of building construction_____
Type of other construction_____
Floor area of principal buildings (sq.ft.) a.____Active_____storage
b.____Active_____Storage
c.____Active_____Storage

Seating capacity:
a. Total_____
b. Assembly room_____

Height of principal building or structure(ft.)____
Area of lot or parcel (sq.ft.)_____
Street frontage of lot or parcel (ft.)_____(Address determines front)
Setback of principal building from street right-of-way line (ft)____
Right side yard of principal building from lot line(ft.)
Left side of yard of principal building from lot line(ft.)_____
Rear yard of principal building from lot line (ft.)_____
Number of car parking spaces: a. on the lot or parcel_____
b. along lot street front_____
Number of off street truck loading bays_____
Accessory structures (list use, type of construction, floor area, and location) (in which yard)
a. _____ _____ _____ _____ _____
b. _____ _____
c._____ _____ _____ _____ _____
d. _____ _____ _____ _____ _____
Water source_____
Waste disposal method_____
Approximate real estate value_____
Year principal building erected_____
Condition of building:
a. Foundation: Good_____Fair_____Poor_____
b. Outside Finish: Good_____Fair_____Poor_____
c. Roof: Good_____Fair_____Poor_____
d. General Appearance: Good____Fair_____Poor_____

APPENDIX B

Georgetown Township
Existing Available Recreation Facilities

A. Jenison Area School Playgrounds

1. Bauer Road School

   (a) Playground facilities
   (b) Little League Field (Bleachers to be installed soon)

2. Baldwin Road School

   Playground facilities and library

3. Bursley School (Port Sheldon Road)

   (a) Playground facilities and library
   (b) Gym (Public may use for small fee)

4. Hanley School, Route #1, Grandville

   Playground facilities and library

5. Jenison Christian School (Main Street)

   Playground facilities and libary

6. Jenison Christian Junior High (Church Street)

   Playground facilities and library

B. Hudsonville Area School Playgrounds

7. Bauer School (48th Street)

   Playground facilities and library

8. Alward School (Route #1)

   Playground facilities and library

9. Shack Huddle School (Route #2)

   Playground facilities and libary

10. Hudsonville High School (School Avenue)

Gym--Baseball Field, football field and library

11. Hudsonville Park Elementary (Park Street)

Playground facilities and library

12. Hudsonville Christian Elementary (3435 Oak Street)

Playground facilities and library

13. Hudsonville Unity Christian High (3487 Oak St.)

Playground facilities -- football field, tennis court, gym and library (open one night a week during the summer for the public).

C. Hudsonville City Park

14. Hughes Park (40th & VanBuren Street)

(a) Consists of forty (40) acres-- Playground facilities, shelter house, toilet facilities running water, shuffle board, picnic areas, fireplaces, horse trails, woods, concession stand, Little League and baseball fields, quonsit hut for 4H exhibits,

(b) Jenison and Hudsonville Recreation Program for the summer consisting of qualified teachers, supervised swimming class (transported to Laman Park & Holland State Park), arts and crafts and many other activies.

D. Ottawa County Park

15. Park - unnamed (Haggard property)

31½ acres--10 acres developed (possible expansion to 80 acres), gravel road, log shelter house with cement floor, toilet facilities, storage house cree, wading pool, outdoor stoves, parking facilities, located between Bauer and Baldwin on 28th Street. Ottawa County Park Division developing it.

E. State Park

16. Roadside Park (Jenison on M-21)

F. Other Park Available to Residents of Georgetown Township

17. Tunnel Park (Holland, Michigan)

Picnicking and swimming

18. Holland State Park (Holland, Michigan)

Picnicking, boat land, swimming (supervised), toilet facilities, camping, trailer parking and fishing

19. Johnston Park (Kent County Park near Grand Rapids)

Consisting of 50 acres of scenic drive, picnic area, 2 ball fields, shelter house and playground facilities.

20. Laman Park (Wyoming)

Baseball field, supervised swimming and picnicking

21. Grandville School Playgrounds

(a) East Elementary (30th SW)

Playground facilities

(b) West Elementary,(38th SW)

Playground facilities, softball and baseball field).

(c) Emens Elementary

Library and Gym

(d) Central Elementary Prairie Street

Playground facilities, athletic field (including football field).

22. Grandville Park Playgrounds

(a) 10 acres being developed near West Elementary

(b) West of Aaron and South of West Elementary Two baseball diamonds, ice skating rink, four acres been seeded for playground.

(c) Six acres has been leveled north of 30th and west of Wallace Ice Skating Rink with lights and warming house, one ball diamond and playground facilities.

(d) Tower Field Indian Mound, (Kent and W. Water St.)

Little League softball field with bleachers.

23. Grandville Junior Chamber of Commerce Landing Dock (W. Oaks and W. Water Streets)

Dock for launching boats into Grand River and Shelter House.

24. Grandville City Library (3953 Maple St. at Church St.)

25. Grandville Commercial Recreation Facilities

(a) Terry Hall Roller Rink (Chicago Dr.)

(b) Fairlanes Bowling (Chicago Dr.)

(c) Minature Golf (Chicago Dr. & Jenison Rd.)

(d) Minature Golf (Hudsonville Plaza)

(e) Sunnybrook Golf Course (Port Sheldon Road)

Roadside Park (Jenison Rd., Chicago Dr.)

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CHARLESTON TOWNSHIP STUDY

"LAND USE REPORT"

Field Report No. 108

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

Charleston Township Development Study Committee

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John Hogg
Curtis Meyer
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Project Coordinator
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Report Prepared By
Gerald R. Gill

Supervised By
Robert B. Hotaling
Richard D. Duke

Institute for Community Development and Services
Continuing Education Service
Michigan State University

May 1961

CHARLESTON TOWNSHIP

LAND USE REPORT

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PURPOSES OF THE STUDY

The broad purposes of the Charleston Township Development Study are many but most important the study is to acquaint the citizens and tax payers in Charleston Township with the changing conditions of the times in relation to: (1) population trends, (2) the economy which supports the population, (3) the present private and public uses of the land in Charleston Township served by streets and highways, utilities and facilities of a public, semi-public or private nature, (4) the present use of the natural resources available in the township, (5) guides for future planning for the development of the Township in terms of future improvement and expansion, and (6) the relationship of Charleston Township to the regional influences of the Kalamazoo and Battle Creek areas.

During the course of study carried out by the study group many aspects of the ownship were studied in detail and discussed at length to determine the future course of action for the best possible development in Charleston Township. The study group investigated the following six major areas in order to be able to determine preferred courses of action.

(1) Land Use
(2) Circulation
(3) Utilities
(4) Facilities
(5) Population
(6) Economic Base

METHODOLOGY FOR ACCOMPLISHING THE STUDY

The Charleston Township Board, after agreeing to proceed with the development study and with the help of the Institute for Community Development, delegated the responsibility for carrying out the study to Charleston Township Development Study Group. This group acted as the steering committee for the total study. It, in turn, divided its membership into six subcommittees with assignment responsibilities in the six groups mentioned above.

The Study Group with the help of the Institute developed a working program. Subsequent to making the committee assignments, discussions were held on procedure for carrying out the work. Discussions were held concerning information necessary to the study, the need for it, where to get it, and how to use it. Data collected by the committees were recorded on survey forms. Each survey form was keyed to a section or parcel of land both for use in the field and later for transferring the data onto a map of the township. Through this procedure maps were prepared showing the following:

(1) Soil Conditions
(2) Street and Highway Locations
(3) Commercial, Residential, Public and Semi-Public Land and Building Uses
(4) Agricultural Land Uses

FINDINGS OF THE STUDY GROUP

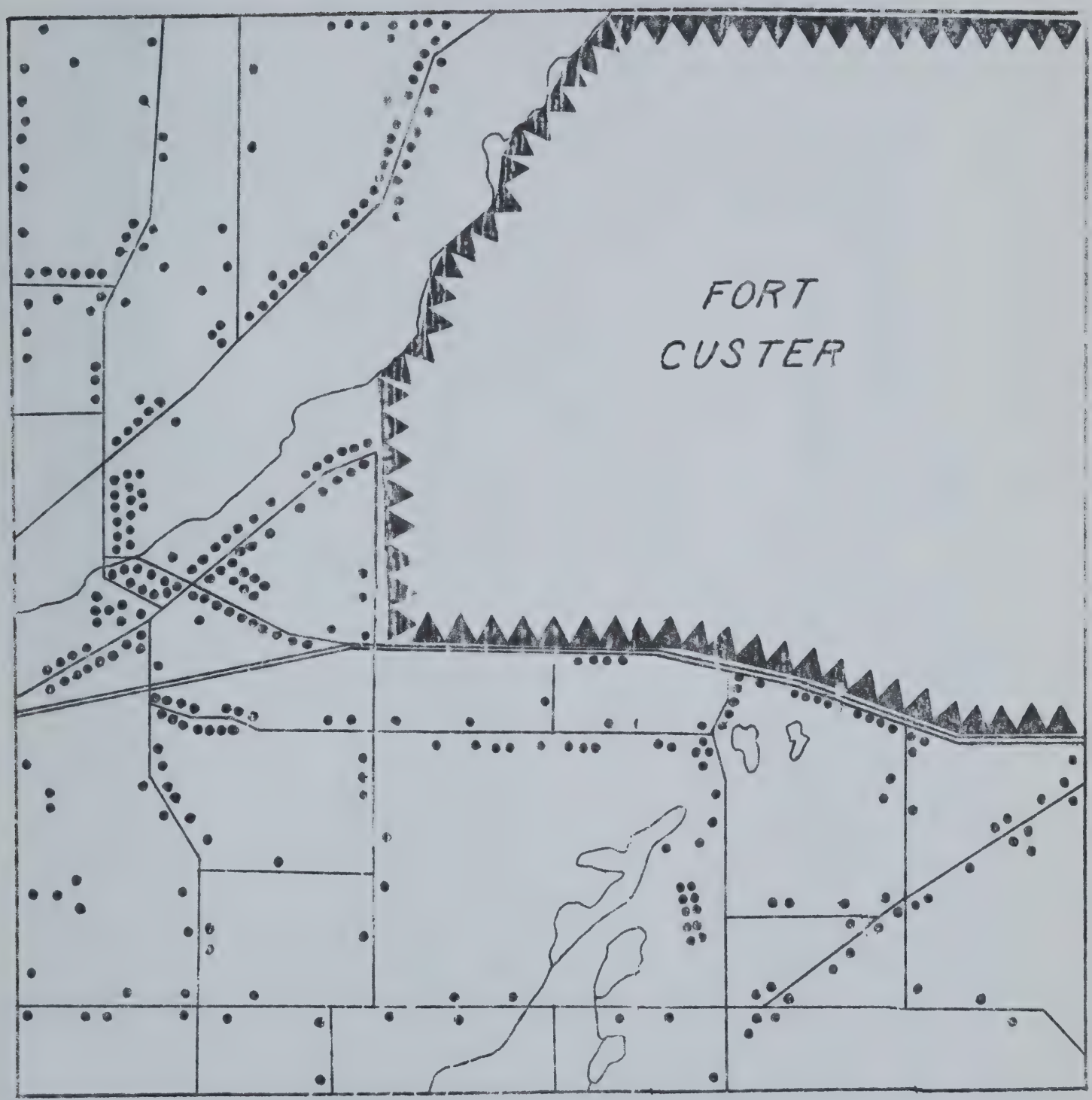
Regional Influences

Charleston Township is experiencing increased patterns of urban growth along with increased urbanization in nearby areas. To understand probable future growth in Charleston Township, it is necessary to have a knowledge of development within the township and in the surrounding region.

Charleston Township (T. 2 S - R. 9 W) is located on the east side of Kalamazoo County adjacent to Calhoun County. It is in the west, south-central portion of Michigan's Southern Peninsula. It is crossed by an interstate expressway and two railroads linking Detroit and Chicago, the major midwestern metropolitan centers.

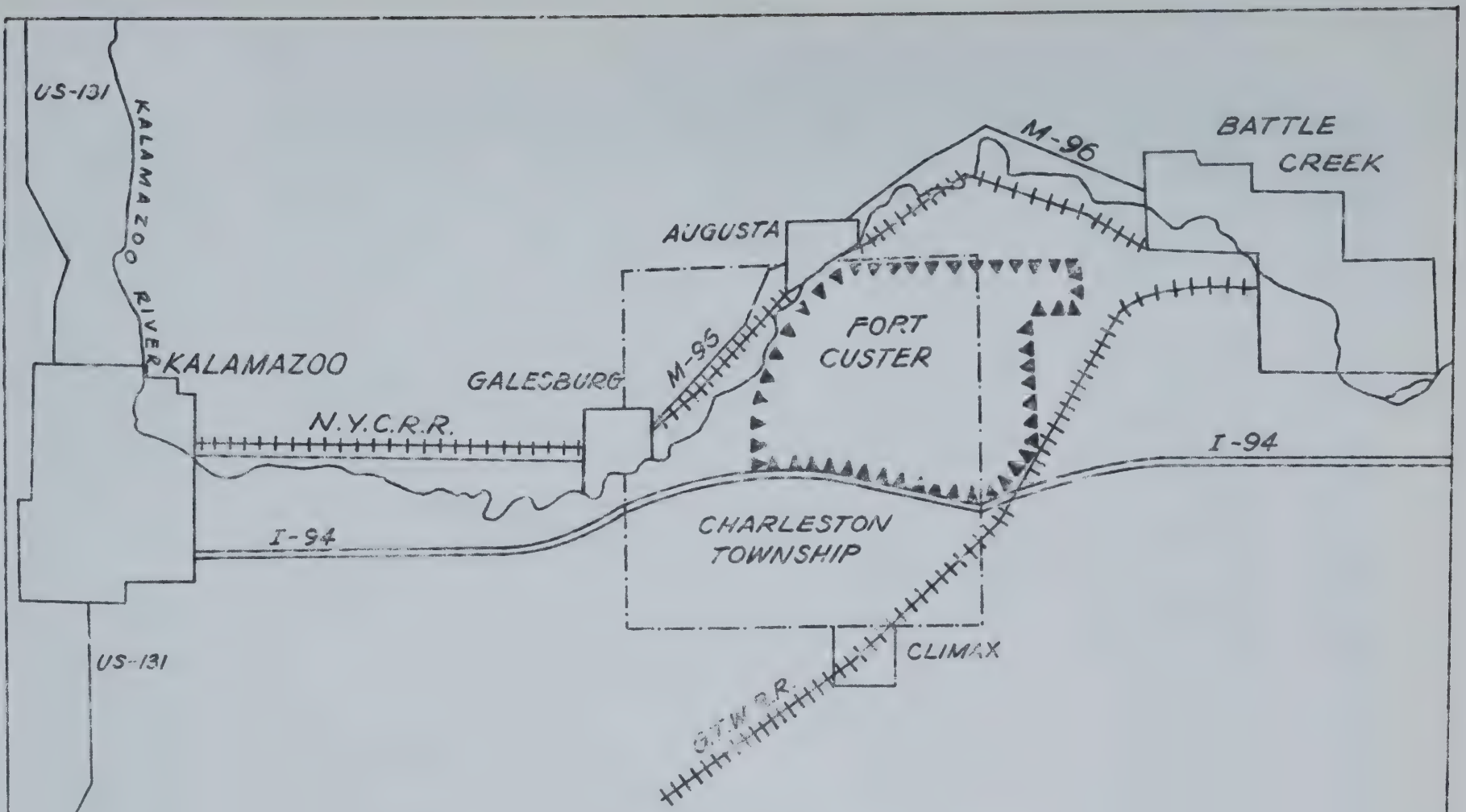
The nearest large cities are Kalamazoo, 7 miles from the township's western boundary, and Battle Creek, 3 miles from the eastern boundary.

Kalamazoo, with 85,000 people, is the corssroads of southwestern Michigan. Located along the Kalamazoo River in an area of gently rolling terrain, the only natural barrier to growth is marsh land north of the city. This unbuildable soil has meant that Kalamazoo's growth has been to the west, south, and east. Kalamazoo is at the



● LOCATION OF COMMERCIAL AND RESIDENTIAL LAND USE.

CHARLESTON TOWNSHIP
NON-FARM LAND USE - 1959



CHARLESTON TOWNSHIP

ITS RELATION TO THE KALAMAZOO-BATTLE CREEK AREA.

intersection of major east-west and north-south highways and railroads. East-west route I-94 connects with north-south highway US-131 at Kalamazoo.

Battle Creek, a city of 48,000 people, lies in a broad valley of the Kalamazoo River at a point where the river flows in a southeast to northwest direction through hilly terminal moraines. The city developed in a linear pattern along the river valley. This settlement pattern has continued so that present day Battle Creek is orientated along this southeast-northwest axis.

Regional Influences on Development

In analyzing the effect of these cities on development in Charleston Township it would seem that Kalamazoo, rapidly growing to the east and south, and with convenient access to the interstate expressway, will have a more pronounced effect on the urbanization in the township than will Battle Creek. Battle Creek's "axis-growth" is not in line with the township. The expressway is located further from the city of Battle Creek than is the case in Kalamazoo, and Fort Custer provides a barrier to development in this direction. From this it would seem that growth in Charleston Township will be primarily from the west, or Kalamazoo area. As the automobile is the chief means of transportation in this development the interstate expressway, I-94, will play a major role in the township's future. As this is a limited access road, development at first may be expected near the interchanges. There are three such interchanges in or near Charleston Township. The interchange just to the west of the township boundary is the closest to Kalamazoo. This interchange may be expected to serve development in the western portion of the township and the city of Galesburg. The interchange within the township, at 40th Street, will serve Augusta, areas in the north-central and those in the south-central portions of the township with the most direct access. The interchange east of the township boundary will serve the Climax area. These three interchanges may then be thought of as three forces directing the flow of people and goods in and out of the township.

Immediately adjacent to boundaries of Charleston Township are two villages and one city; Augusta a village with a population of 700 lies to the north; the fourth-class city of Galesburg is on the west with a population of 1200; and the village of Climax having 550 population lies to the south. They serve as convenience centers for retail trade and services to the residents of the township.

Natural Conditions in Charleston Township

The surface soil of Charleston Township is composed of extensive glacial deposits. This has resulted in gently rolling, undulating terrain to extremely steep terrain. The main element in the drainage pattern is the meandering Kalamazoo River which traverses the township across its northwestern quarter. A few glacial lakes are found in the southern part of the township. Most of the soils are light, not well suited for maximum agricultural production. Although some farming is carried on, today's residence pattern is over 80 per cent rural nonfarm.

Poorly drained land, especially along the Kalamazoo River and in the southeast quarter of the township place a physical limitation on development. The area immediately east of Galesburg logically could be served by a central sewerage system, as could Augusta in the north-central area and Climax in the southeast section.

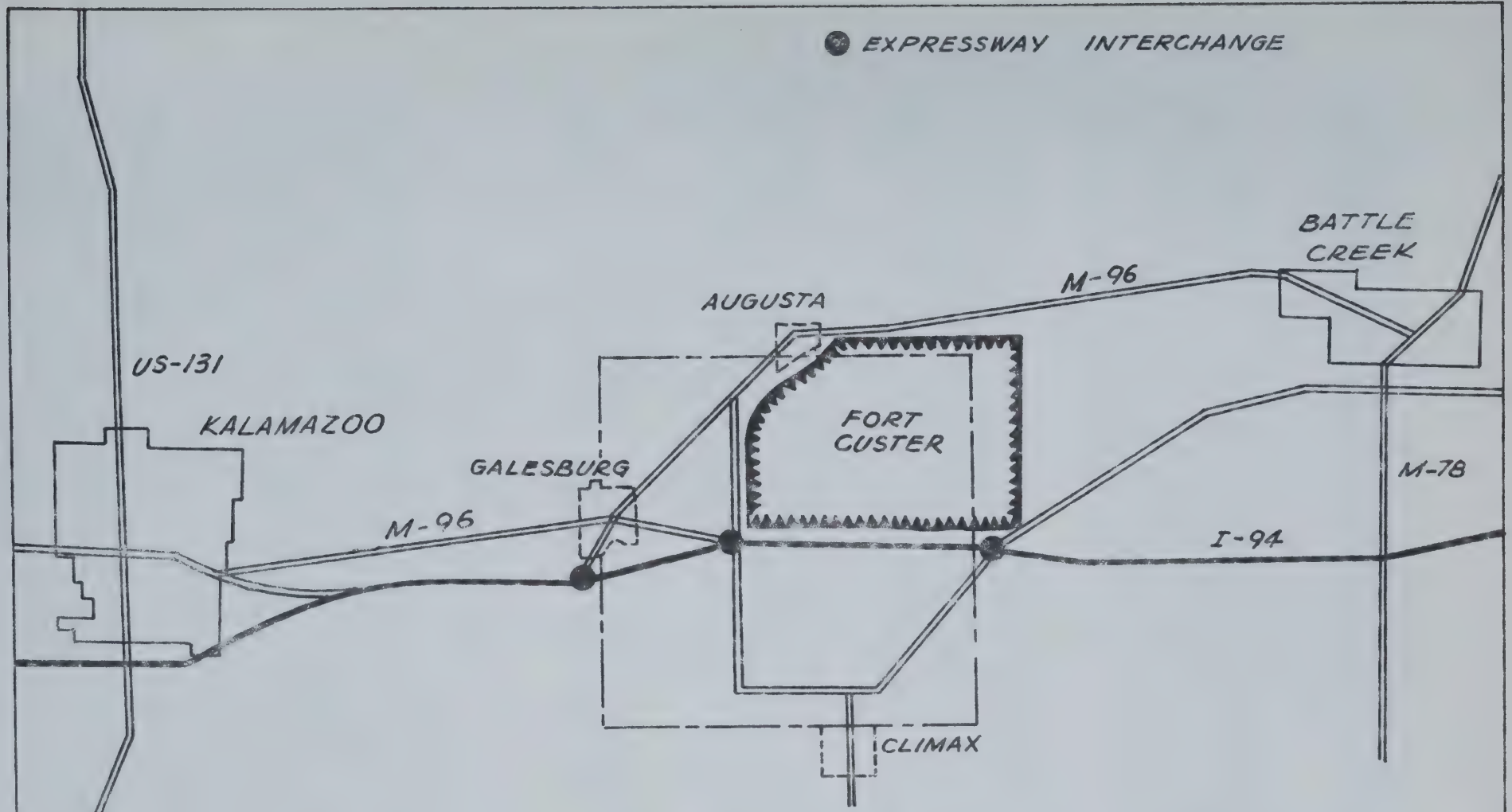
General Development Trends

Historically, Charleston Township has been a rural area. The first permanent residents engaged in farming and established an agricultural pattern that continued through the end of World War II. Since that time, the growth pattern of the township has changed. Continued growth in Kalamazoo and Battle Creek led to a movement into the township. Recent completion of the interstate expressway (I-94) connected the township directly to these cities, reduced travel time, and is continuing to accelerate the change of land ownership and land use.

In the northeast portion of the township, about twelve and one-half sections of land comprising Fort Custer is under Federal Government control.

Residents predominantly have settled near the neighboring communities of Galesburg, Augusta, and Climax bordering the township, and along, or near, the principal roads within the township.

In the 1960 Institute for Community Development report, "Land Characteristics and Change in Land Use in Charleston Township", there was a total of 368 dwellings (80.5 per cent) classified as rural nonfarm. The majority of the residents



PROPOSED CHARLESTON TOWNSHIP STREETS AND HIGHWAYS AND THEIR RELATIONSHIP TO EXISTING AREA HIGHWAYS.

derive their incomes from a source other than farming, that is, in the industrial, commercial, institutional, and governmental employment locations located within commuting distances of their homes in the township.

What little agricultural activity remains in Charleston Township is primarily centered in the portion of the township south of I-94. A small center of farming activity is carried on in the northwest section, north of M-96. Topography of the township is generally rolling and much of the soil is either poorly drained or too light to be competitively productive.

Employment opportunities in the township, other than agricultural, are limited. There is no industry. Commercial establishments are few, and are of marginal type along roads leading into the surrounding towns. Since employment opportunities are outside the township, most of the residents commute to employment centers, principally those in Kalamazoo.

Transportation in Charleston Township is based on motor vehicles. Roads of major importance are I-94 bisecting the township in an east-west direction and M-96, the state trunk-route from Kalamazoo to Battle Creek. Hard-topped, well surfaced county roads serve the township.

The two railroads crossing the township do not have facilities for handling freight in the township. Freight agencies are located at Galesburg and Augusta.

THE LAND USE PLAN

The Land Use Plan encompasses accepted concepts for an ideal community modified by existing development within the community. The objective of the Land Use Plan is to provide sound relationships between various community functions. For purposes of clarity in this report, Charleston Township has been separated into planning areas, each area being one type of land use. The areas are shown on the land use map and are described below.

Commercial--Area 1

Both Kalamazoo and Battle Creek contain large commercial centers. These cities serve the entire area including Charleston Township with major wholesale, retail and professional services. The smaller towns of Galesburg, Augusta and Climax have "local service" retail facilities

that serve the daily needs of the immediate area. Kalamazoo and Battle Creek will most likely remain the major commercial centers for the area. With increasing population in Charleston Township, increased opportunities for a community type service center and several neighborhood shopping areas are possible. These latter should be geographically located at or near strategic intersections of major streets to provide direct and adequate access to the local consumers.

The area northwest of the expressway interchange has been proposed as the major planned community shopping district. Such a center would help to defray the cost of municipal services for the home owner. Uncontrolled expansion of commercial land use limits sound commercial development, creates parking problems, taxes street capacities, and depresses adjacent residential property values. For these reasons, the single shopping district has been proposed.

Located near the interchange, the commercial area will be most convenient to all residents of the township. While any land around the interchange might be chosen, the northwest quadrant was picked since it is closest to the center of the proposed higher density residential development. It is adjacent to the road connecting with Galesburg and it can easily be provided with utilities--especially sewer.

Industry--Area 2

Industry in the area has historically located principally in the cities of Kalamazoo and Battle Creek or in areas immediately adjacent to them. Being existing dominent industrial centers, they will probably continue to attract most new industry in the future. With Kalamazoo and Battle Creek so close to Charleston it is unlikely that heavy industry would choose to locate in the township. However, it is entirely possible that light service type industries would locate within the Township boundaries. To provide industry with a suitable location, it has been suggested that land be allocated for future industrial development. For this purpose it is proposed that industry develop in a corridor between the Kalamazoo River and the New York Central Railroad tracks. This area would not only have excellent rail freight service, but motor freight transportation from existing state highway M-96, and from the proposed northern extension of 40th Street linking directly to Interstate

Express Highway I-94. These highways, railroad and river present logical boundaries for such as industrial areas and also would provide a buffer zone between the industrial and other types of land uses.

Residential

From the study it would appear that the biggest increase in land development will come from residential use. Charleston Township today is developing into an attractive area for family living, but close enough to the cities of Kalamazoo and Battle Creek, where employment opportunities will exist and continue to expand. Greatest development will more than likely locate initially around the interchanges of I-94 and roads leading directly from adjacent land areas to the interchanges. The area between Galesburg and the 40th Street interchange already presents the largest residential concentration in the Township. This area will probably become the nucleus for residential development to "grow out from" in as orderly a manner as possible. The Township should direct its public improvements toward this end.

Area 3: High Density--Urban Residential. Designed for a maximum density of five families per acre. This district east of Galesburg extending past the expressway interchange is the only part of the township in a natural drainage basin that could accommodate a sewer system for a dense population. This location is the most probable area for urban development by virture of its location. It includes all or parts of sections 17, 18, 19, 20, 21, 28 and 29.

Area 4: Low Density--Suburban Residential--Northern. Lies in the northwest section of the township north of M-96 in sections 4,5,6,7,8 and 18. This area is recommended for residential development of one to two acres per family.

Area 5: Low Density--Suburban Residential--Southern. This area includes lands in the southwestern portion of the township south of I-94 and the high density urban residential district. All or portions of sections 19, 29, 30, 31 and 32 are included in this classification at a density of one to two acres per family

Area 6: Low Density--Rural Residential. This classification includes much of the better agricultural land in the southern portion of the township. Residential development is proposed for a density of not less than five acres per family. This area includes all or parts of sections 25, 26, 27, 28, 33, 34, 35 and 36.

Public--Area 7

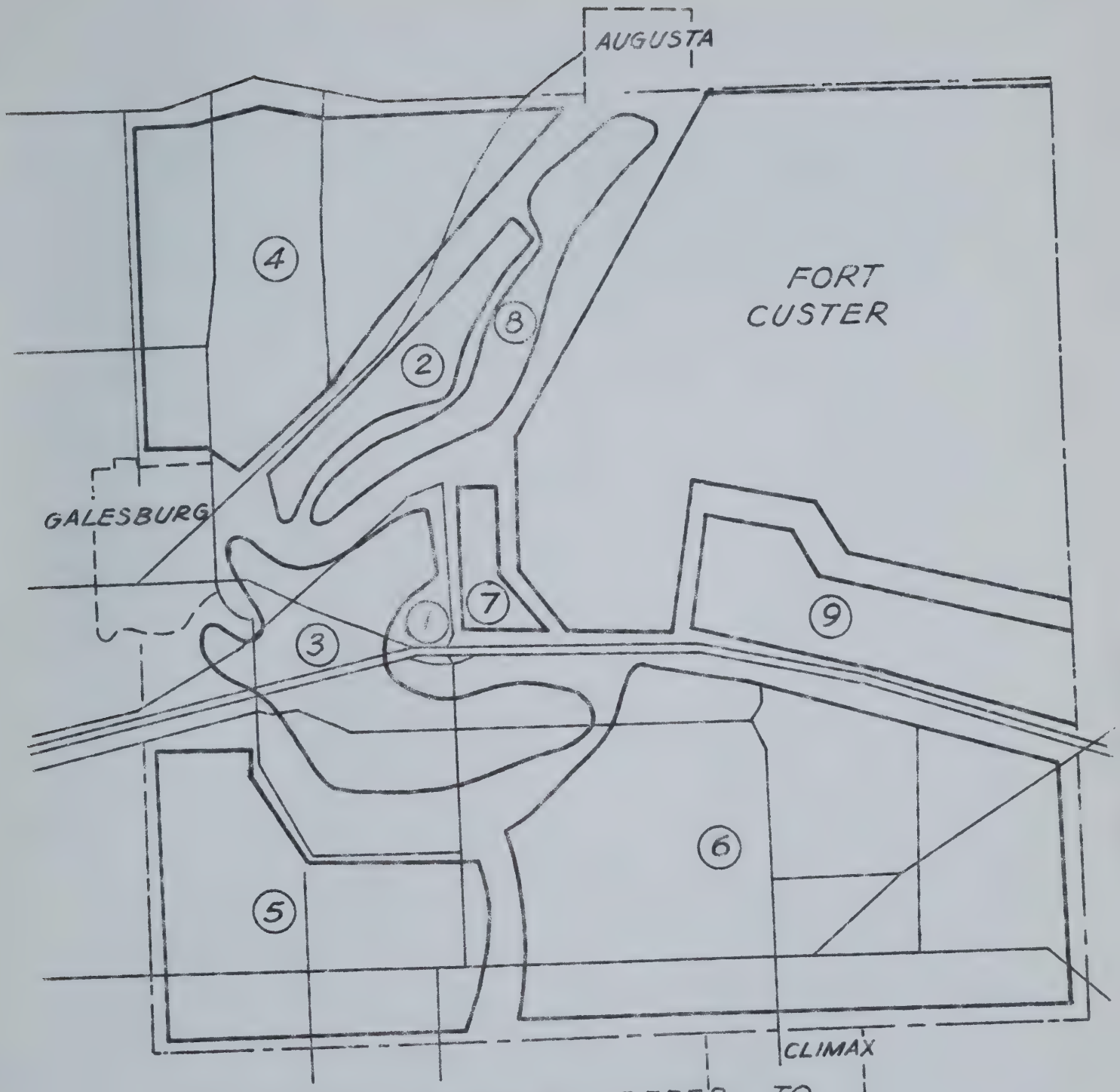
The necessity for having land set aside for public purposes, such as a township center, etc., led to the selection of the northeastern quadrant of the 40th Street interchange for public use. Centrally located, this area could be reached easily from any part of Charleston Township. Its hilly terrain makes attractive building sites. Development would depend upon the ability to obtain the land from the Federal Government.

Recreational

Some of the land in Charleston Township, particularly in places near the Kalamazoo River and portions of extremely rough terrain would best be used as recreational areas. The area surrounding Charleston Township has few public recreation centers and the creation of them in Charleston Township would add to the local resources.

Area 8: Kalamazoo River Recreation Area. The flood plain of the Kalamazoo River, adjacent to the industrial area, is unsuited for more intensive development. It is suited for recreational purposes and is readily accessible to residential areas.

Area 9: Fort Custer Recreational Area. An extension of the Fort Custer State Recreational Area, a portion of the Fort leased by the State from the Federal Government, provides a larger area fro regional use in a portion of Michigan that has few state parks.



FOOTNOTE: NUMBERS REFER TO AREAS INDICATED IN THE TEXT.

SUMMARY

The future growth and development of Charleston Township can be made only by scientific judgements. Therefore, the land use plan should be considered as a guide to future development. It should be kept flexible in the sense that it will be subject to periodic re-examination on the basis of actual development trends in order to keep the plan up to date with the ever changing pattern of current needs.

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Institute for Community Development

CHARLESTON TOWNSHIP STUDY

CIRCULATION REPORT
JUNE, 1961

CONTINUING EDUCATION SERVICE / MICHIGAN STATE UNIVERSITY

CHARLESTON TOWNSHIP STUDY

Circulation Report
June, 1961

Prepared by
Gerald R. Gill

Under the Supervision of

Robert B. Hotaling
Urban Planning Specialist
and
The Charleston Township Planning Commission

M. 109

CHARLESTON TOWNSHIP

STREETS AND HIGHWAYS PLAN

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PURPOSES OF THE STUDY

The broad purposes of the Charleston Township Development Study are many but most important the study is to acquaint the citizens and tax payers in Charleston Township with the changing conditions of the times in relation to: (1) population trends, (2) the economy which supports the population, (3) the present private and public uses of the land in Charleston Township served by streets and highways, utilities and facilities of a public, semi-public or private nature, (4) the present use of the natural resources available in the township, (5) guides for future planning for the development of the township in terms of future improvement and expansion, and (6) the relationship of Charleston Township to the regional influences of the Kalamazoo and Battle Creek areas.

In this Streets and Highways Study, special emphasis is given to changing community conditions with regard to present uses of the land served by existing streets and highways, the guidance of future development of Charleston in terms of planning for its improvement and expansion, and the integration of the township's local streets and roads with the regional highway network.

Many aspects of Charleston Township's present road pattern and future needs were discussed in detail. These include:

(1) The effect of the new interstate expressway, I-94, upon future growth as the highway offers the opportunity for quicker and more direct access between the Township and the cities of Kalamazoo and Battle Creek;

(2) The I-94 expressway interchanges and their connections to local roads to determine their influence upon land development;

(3) The problem of establishing easy access between expressway interchanges and all parts of the township and surrounding areas;

(4) The problem of maintaining access to interior areas off highways I-94 and M-96;

(5) The lack of sufficient bridges over the Kalamazoo River.

METHODOLOGY OF THE STUDY

The Charleston Township Board, after agreeing to proceed with the development study and with the help of the Institute for Community Development, delegated the responsibility for carrying out the study to Charleston Township Development Study Group. This group acted as the steering committee for the total study. It, in turn, divided its membership into six subcommittees with assignment responsibilities in the six groups mentioned above.

The Study Group with the help of the Institute developed a working program. Subsequent to making the committee assignments, discussions were held on procedure for carrying out the work. Discussions were held covering information necessary to the study, the need for it, where to get it, and how to use it. Data collected by the committees were recorded on survey forms. Each survey form was keyed to a section or parcel of land both for use in the field and later for transferring the data onto a map of the township. Through this procedure maps were prepared showing the following:

(1) Street and Highway Locations

(2) Soil Conditions

(3) Commercial, Residential, Public and Semi-Public Land and Building Uses

(4) Agricultural Land Uses

The data obtained by the Land Use Committee made it possible to form the basis of this report on the Streets and Highways of Charleston Township.

FINDINGS OF THE STUDY GROUP

With the expansion of urban growth in Charleston Township the demands of increased automotive traffic must be satisfied. In order to prevent substandard development of streets and highways in the township, it is necessary to develop a coordinated long-range plan for future streets and highways. The plan presented in this report provides the basis for a coordinated network of streets and highways to serve the existing and potential development of Charleston Township.

Regional Influences

Charleston Township (T. 2S - R. 9W) is located on the east side of Kalamazoo County adjacent to Calhoun County. It is in the west, south-central portion of Michigan's Southern Peninsula. It is crossed by an interstate expressway and two railroads linking Detroit and Chicago, the major midwestern metropolitan centers.

The nearest large cities are Kalamazoo, 7 miles from the township's western boundary, and Battle Creek, 3 miles from the eastern boundary.

Kalamazoo, with 85,000 people, is the crossroads of southwestern Michigan. Located along the Kalamazoo River in an area of gently rolling terrain, the only natural barrier to growth is marsh land north of the city. This unbuildable soil has meant that Kalamazoo's growth has been to the west, south and east. Kalamazoo is at the intersection of major east-west and north-south highways and railroads. East-west route I-94 connects with north-south highway US-131 at Kalamazoo.

Battle Creek, a city of 48,000 people, lies in a broad valley of the Kalamazoo River at a point where the river flows in a southeast to northwest direction through hilly terminal moraines. The city developed in a linear pattern along the river valley. This settlement pattern has continued so that present day Battle Creek is orientated along this southeast-northwest axis.

THE BASIS FOR THE STREETS AND HIGHWAYS PLAN

The streets and highways plan has been coordinated with the tentative land-use plan for the township. Both the land-use plan and the streets and highways plan are basic elements in the development of a comprehensive plan for coordinated growth of the township.

The land-use map provides the basis for indicating where people are most likely to live and where the commercial and industrial establishments will likely be located. Each of these different land uses will generate the increased traffic that forms the basis of the location and scale of major streets and highways in the township. In this way, the plan relates to, and serves, the land-use pattern.

Existing roads in the township have helped make the present land-use pattern. The projected land-use plan has made it necessary to improve the present system and to provide additional new streets more adequately to intergrate the land-use generators--residential, commercial, inudstrial, and public land uses--with the streets and highways.

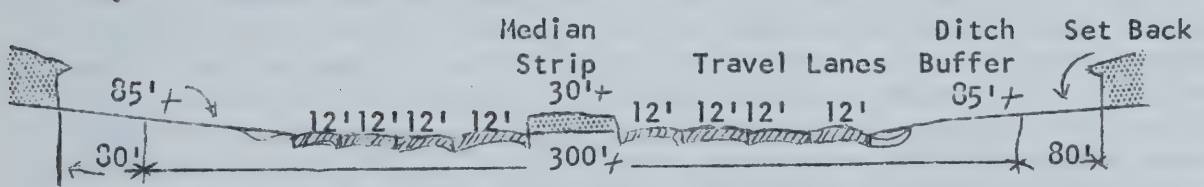
THE TYPES OF STREETS AND HIGHWAYS PLANNED

Incorporated in the plan are the following types of streets and highways:

(1) Interstate expressway
(2) Intercommunity arterials
(3) Community arterial
(4) Interneighborhood access streets
(5) Neighborhood access street

Interstate Expressway

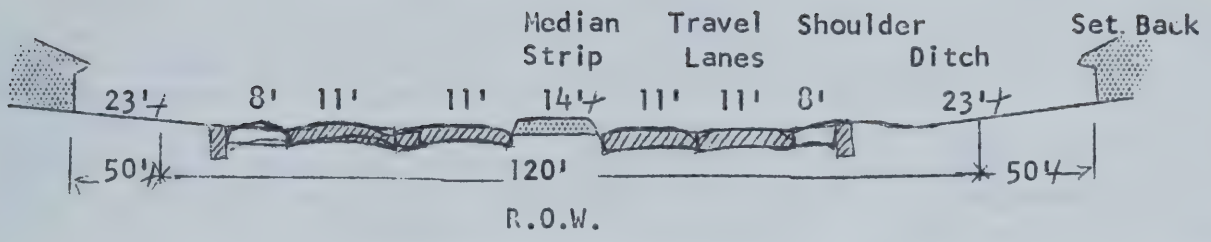
Designed for high volume, this type of high speed express highway has access only at designated intersections. There is no direct access to properties adjacent to the highway. Interchanges and intersections are grade separated, that is, the two crossing roads are completely separated from each other by having one pass over the other. Expressways can handle traffic volumes up to 20,000 to 30,000 car trips per day at speeds up to 70 m.p.h. Recommended minimum design standards call for 300 ft. wide rights-of-way, median strip divided, and space for at least four (or six) 12 ft. wide paved lanes for travel, gravel or black top shoulders on either side of the highway for emergency use, necessary drainage ditching and a buffer strip between the ditching and the adjacent properties. Buildings on properties adjacent to the highway are recommended to be not less than 80 ft. from the right-of-way line in order to provide for a safety setback and setting for developments abutting these highways.



TYPICAL CROSS SECTION OF AN EXPRESSWAY

Intercommunity Arterials

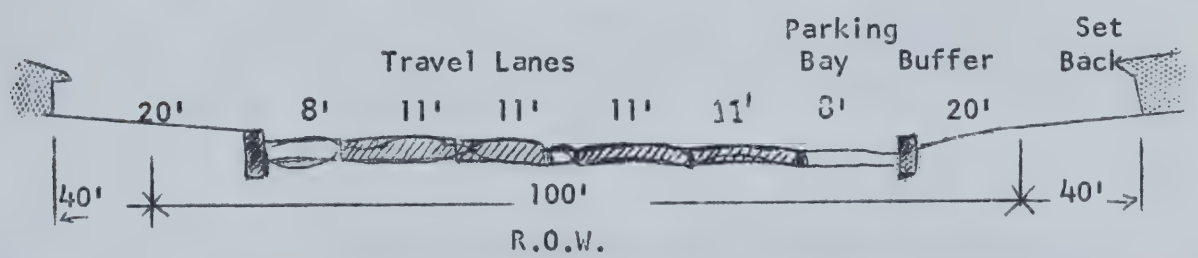
Designed for use between the communities adjacent to Charleston Township, these roads may handle traffic volumes ranging between 5,000 - 10,000 car trips per day at speeds up to 40-50 m.p.h. Recommended design standards provide for a 120 ft. right-of-way providing space for two to four paved travel lanes 11 ft. wide, divided by a median strip between opposing traffic lanes, gravelled shoulders or parking bays on both sides of the street, sidewalks, necessary drainage ditching and a buffer strip of land between the curb or ditching and the adjacent properties. Building setbacks along this type of highway are recommended to be not less than 50 ft. from the right-of-way line so as to provide space for possible local access streets, off-street parking, and setting for buildings to be comstructed on these abutting properties.



TYPICAL CROSS SECTION FOR AN INTERCOMMUNITY ARTERIAL

Community Arterial

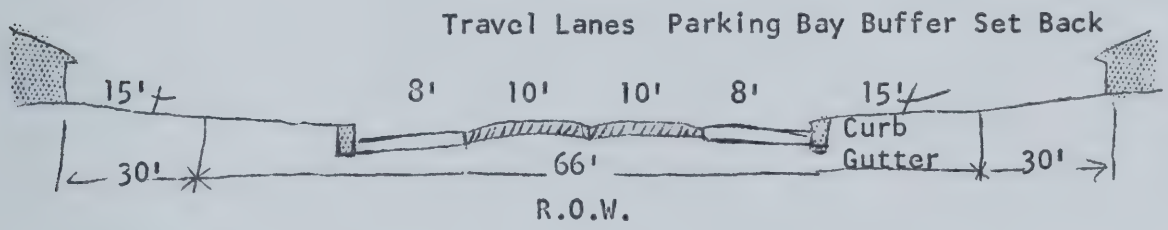
Designed for use within the township, these roads will handle traffic from one portion of the township to another, or to a more major or minor type of highway facility. It is estimated that these roads will handle traffic volumes ranging between 1,000 - 4,000 car trips per day at speeds up to 35-40 m.p.h. Recommended minimum design standards suggest at least a 90 ft. wide right-of-way providing space for two to four paved travel lanes 11 ft. wide, paved parking bays on both sides of the street, curb and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. Building set-backs along this type of highway are recommended to be not less than 40 ft. from the right-of-way line in order to provide a safe distance between the traffic, pedestrian and other activities along the edge of this type of street and to provide space for local access street or common driveway, parking and setting for the buildings on these abutting properties.



TYPICAL CROSS SECTION FOR A COMMUNITY ARTERIAL

Interneighborhood Access Streets

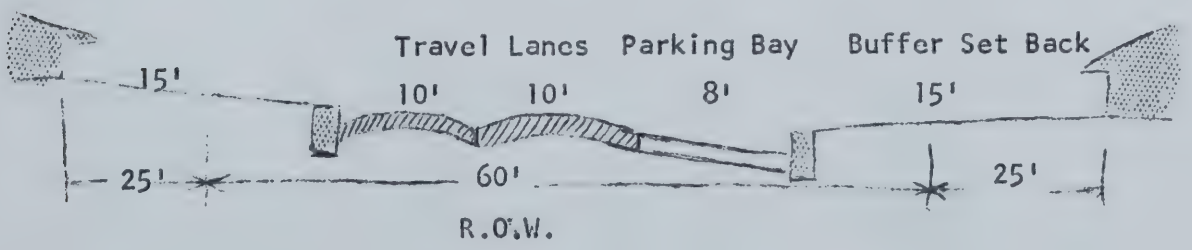
Designed primarily to move traffic between the residential areas and the other street systems, these streets will probably handle under 1,000 car trips per day at speeds up to 30 m.p.h. Recommended minimum design standards call for rights-of-way of at least 70 ft. providing space for two paved travel lanes 10 ft. wide, paved parking bays on both sides of the street, curb, and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. For safety purposes and setting for development on the properties adjacent to this type of street it is recommended that the setback be not less than 30 ft. from the right-of-way line.



TYPICAL CROSS SECTION FOR AN INTERNEIGHBORHOOD ACCESS STREET

Neighborhood Access Street

Designed to serve only the interior portions of residential areas and to provide access to residential property, these roads would carry no through traffic. The location of these streets will be determined as each area or parcel of land is developed. It is estimated that these streets will handle under 200 car trips per day at speeds under 15 m.p.h. Recommended minimum design standards call for rights-of-way of at least 60 ft. providing space for two paved travel lanes 10 ft. wide, a paved parking bay on one side of the street, curb and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. Building setbacks along these streets are recommended to be not less than 25 ft. from the right-of-way line.



SUMMARY

This Streets and Highways Plan intergrates the road network with the Land-Use Plan and the expected growth in Charleston Township as well as the road pattern of Kalamazoo County. The Road pattern plan also presents design standards for street and highway construction. The plan should be used as a guide for future development and should be examined periodically on the basis of actual development that takes place in order to keep it up to date with the changing pattern of land use.

RECOMMENDED MINIMUM
DESIGN STANDARDS FOR STREETS AND HIGHWAYS

Type of Street or Highway	Right-of-Way Width	Estimated Ave. Range of Car Trips per Day	Max. Design Speed (m.p.h.)	Paved Travel Lanes	Travel Lane Width	Median Strip Width	Shoulders or Parking Bay Width SH or PB	Buffer Strip Width*	Set Backs from R.O.W.
Expressways	300'	20,000 - 30,000	65	4-6	12'	20'+	SH. 12'	30'+	80'
Intercommunity arterial	120'	5,000 - 10,000	40-50	2-4	11'	14'+	SH. 8'	15'+	50'
Community arterial	100'	1,000 - 5,000	35-40	2-4	11'	x	PB. 8'	20'+	40'
Interneighborhood access streets	66'	Under 1,000	25	2	10'	x	PB. 8'	15'+	30'
Neighborhood access streets	60'	Under 200	15	2	10'	x	PB. 8'**	15'+	25'

*Including space for sidewalks

**One side of pavement only

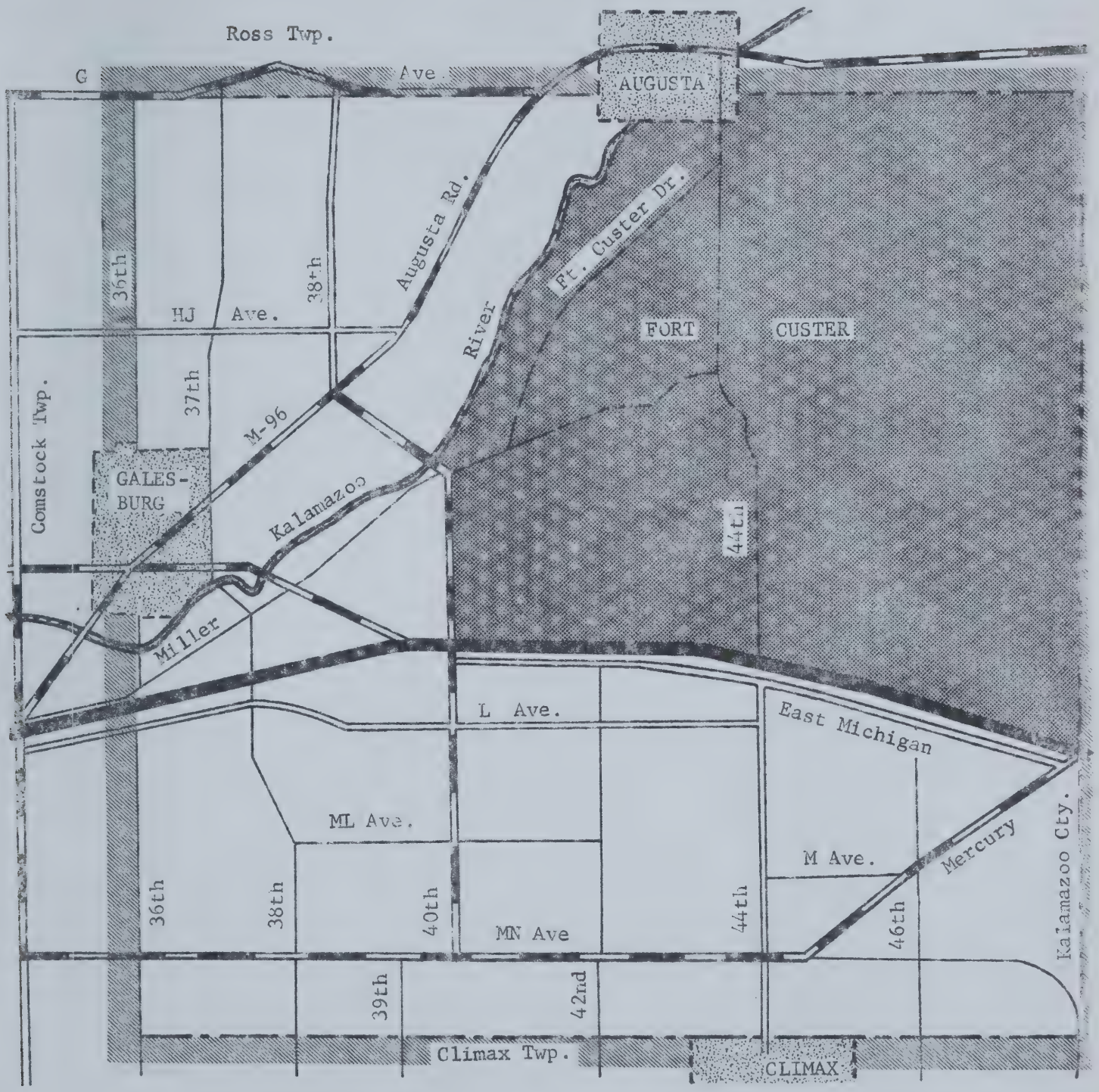
CHARLESTOWN TOWNSHIP - ITS LOCATION IN THE GREAT LAKES REGION.

STREETS AND HIGHWAY MASTER PLAN

CHARLESTON TOWNSHIP

KALAMAZOO COUNTY, MICHIGAN

JUNE, 1961



Expressway

Intercommunity Arterial

Community Arterial

Interneighborhood Access St.

N.

Charleston Township Planning Commissi

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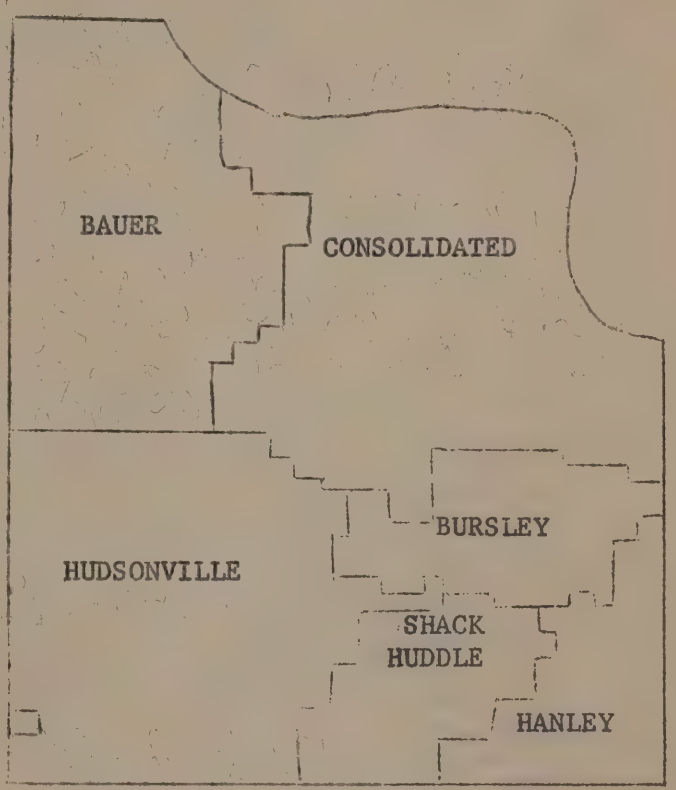
INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

GEORGETOWN TOWNSHIP PLANNING STUDY

"SCHOOL FACILITIES REPORT"

Field Report No.110



Prepared for the
Community Facilities Committee
by
Harvey Wood, Education Specialist

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SCHOOL FACILITIES REPORT

Report of the
Community Facilities Committee
Georgetown Township Planning Study

to the

Georgetown Township Planning Commission

COMMUNITY FACILITIES COMMITTEE

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Charles Anderson
Clarence Foster
Carlton Galer
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Glenn Nykirk
Gerald Paauwe
Harold Postema
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Martin VanDuyn, Chairman

Prepared by

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Continuing Education Service
Institute for Community Development & Services
Michigan State University

April, 1961

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PREFACE

This Community Facilities Committee report on School Facilities in Georgetown Township is one of several being prepared by the committee. Others will deal with such topics as Public Safety, i.e. police and fire protection; Parks and Recreation facilities; Cultural and Religious facilities; and Government Buildings. The committee's work is part of a long-range overall study of the needs of Georgetown Township being conducted by the Township Planning Commission with the assistance of the Institute for Community Development and Services of Michigan State University. From this and other studies now going on or previously completed, the Planning Commission hopes to identify those trends in land use and population growth which are important in planning for the future growth and development of Georgetown Township.

The information upon which this report is based has been obtained from several sources. A detailed survey of public and private schools facilities and enrollments was made by members of the committee; the record of the Ottawa County School Superintendent and Department of Public Instruction were consulted for school census, detailed school enrollment, and school district finance figures; and other data was gleaned from the study's house to house census survey conducted in the fall of 1959. All of this information has been brought together in an integrated and meaningful whole by Mr. Harvey Wood, formerly an Education Specialist with the Institute for Community Development and Services and now Superintendent of Schools, Diamondale, Michigan.

Because of the importance of providing adequate public and private school facilities for the children of the township, this report makes a very significant contribution to the Planning Commission's study of township needs. This study is not intended to be a comprehensive approach to school program or school financing, but rather, to highlight the problems which impending enrollment increases portend for the residents of the township. It is hoped that the report will assist the school boards and the Planning Commission, individually and jointly, to better plan for the needs of Georgetown Township.

SCHOOL FACILITIES REPORT

prepared by

Harvey Wood, Resource Specialist

The rapid increase in population and the urbanization which has taken place in Georgetown Township in recent years have placed increasingly heavy demands on existing community facilities. The need for new or expanded facilities in many areas has been revealed. The report of the Population Committee indicates that this growth trend will probably continue at an equal or even faster pace in the years immediately ahead, thus compounding already acute problems. This report endeavors to survey the nature and scope of existing school facilities within the township and to identify, where possible, those areas in which school facilities need expansion.

Georgetown Township includes all or parts of six school districts. Only one of these, the Hudsonville Public School, presently operates a K-12 program. Three others- the Georgetown Consolidated Schools, the Bauer school, and the Bursley school-- operate graded elementary programs. The remaining two, Hanley and Shack Huddle, are one room primary schools. High school students from the five non-high school districts are sent to the Hudsonville schools and to Grandville in adjoining Kent County, on a tuition basis.

As indicated in the population study, approximately sixty per cent of the people in Georgetown Township belong to the Christian Reformed and Reformed denominations. Most of the Christian Reformed and many of the Reformed church families send their children to the Christian schools. Thus the proportion of children attending private schools is higher than usual in all districts of the township. There are four private schools in the township; a large Christian elementary and junior high and Unity Christian High School in Hudsonville, and Christian elementary and junior high schools in Jenison.

School-Age Population Growth

School census and membership figures indicate that population growth among school-age children has been even more rapid than growth of the general population during the past decade. Total Georgetown Township population (exclusive of Hudsonville) increased from 3990 in 1950 to 7989 in 1960, a growth in excess of 100 per cent. During the same period, school census growth was as follows:

TABLE I

Annual School Census, 5-19 Year Olds
Georgetown Township School Districts*

SCHOOL	1950	1955	1956	1957	1958	1959	1960
Bauer	230	292	309	328	328	341	344
Bursley	168	274	336	389	447	462	529
Georgetown Consolidated	376	639	738	857	1014	1171	1376
Hanley	70	67	73	74	61	57	65
Hudsonville	685	971	1060	1133	1205	1250	1308
Shack Huddle	40	64	69	70	80	85	95
Total	1569	2307	2585	2851	3135	3366	3717

* Includes districts annexed during the period, except for Blendon #2 and #3, which are not included in Hudsonville's 1960 total.

This represents a growth of over 137 per cent in school-age (5-19) population during the same period of time for Georgetown Township school districts. Individually, there has been a wide variation in rates of growth among the school districts of the township. Georgetown Consolidated district alone, has accounted for nearly half

of the school-age population growth, and its rate of development—266 per cent—has been almost twice that of the township as a whole. Bursley district has also grown very rapidly, 215 per cent, while Hudsonville's growth, although large in numbers, has been percentage-wise (88 per cent) below the township average.

Further evidence of continued rapid growth in the numbers of school-age children who must be provided for is shown by the annual school census of children under five years old.

TABLE II

Annual School Census, Pre-School Children

Georgetown Township School Districts: 1954-1960

SCHOOL	1954	1955	1956	1957	1958	1959	1960
Bauer	80	100	84	82	89	99	102
Bursley	196	199	235	250	242	261	278
Georgetown Consolidated	275	386	467	535	615	676	826
Hanley	19	16	19	16	23	19	20
Hudsonville	457	492	525	591	615	632	676*
Shack Huddle	43	48	43	48	40	36	41
Total	1070	1241	1373	1522	1624	1723	1943

* Includes only children from those portions of the Hudsonville district within Gerogetown Township.

Growth in the number of pre-schoolers, as with the school-age group, has been concentrated primarily in Bursley, Georgetown Consolidated, and Hudsonville school districts. For the six year span 1954-1960, the number of pre-schoolers in Georgetown Consolidated district tripled, while Bursley's increased by 42 per cent, and Hudsonville's 50 per cent. Thus, over two-thirds of the increase in numbers of pre-schoolers between 1954 and 1960 occurred in Georgetown Consolidated district. In each case, however, the increase has been substantial.

Further, the population study findings indicate: (1) that Georgetown Township families are larger—4.11 persons per family—than the United States average of 3.42 persons per family; (2) the pre-school age children (0-5) comprise a higher percentage of the population of the township, 14.8 per cent, than the Michigan average of 11 per cent; and (3) that a high proportion of families in the township are of child-bearing age. All indicators, therefore, point to an exceptionally large number of school-age children in the years immediately ahead and thus a heavy burden on both public and private school facilities.

Expansion of School Enrollments

Public elementary enrollments have increased at a pace almost equal to the rapid growth of school-age population.

TABLE III

Enrollments, Non-High School Districts[1].

Georgetown Township, 1954-60

SCHOOL	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60
Bauer	152*	161*	171*	171	176	181
Bursley	114	126	167	195	218	262
Georgetown Consolidated	195	249	288	338	445	547
Hanley	28*	35	33	22	25	24
Shack Huddle	28*	32	28	34	40	38
Total	517	603	687	760	904	1052

1. Does not include high school students tuitioned to other districts.

* Estimated as a percentage of school-age census.

School-age population grew by 137 per cent between 1954 and 1960, while school enrollments, as indicated in Table III above, more than doubled with a 104 per cent increase during this period. This doubling of enrollments has required, of course, a doubling of classroom facilities and instructional staff.

Enrollment data is given for the public non-high school districts only because the Christian schools and the high schools servicing the township serve a broader area, thus it was impossible to isolate township residents from enrollment statistics of these schools. From the data available, however, we may assume that the Christian schools are experiencing similar enrollment pressures. The population census survey indicates that about 60 per cent of all elementary school children attend public schools, while about 40 per cent attend Christian schools. Indications are that this relationship will probably continue. The survey revealed that parents preferences for their pre-school children are in a somewhat similar ratio, and that shifts from public to Christian schools and vice-versa were not occurring in significant numbers.

Existing School Facilities and Future Enrollments

Existing school facilities are summarized in the following table:

TABLE IV

Existing School Facilities in Georgetown Township: 1959-60

District	School	Grades	Number of Classrooms	Enrollment
Bauer		K-8	6	181
Bursley		K-8	11	262
Georgetown Consolidated				
	Connie	K-5	7	179[1]
	Baldwin	K-8	10	246
	Bauer Road	K-8	10	298
Hanley		K-6	1	22
Hudsonville				
	Alward[2]	K-8	5	110
	High School	7-12	22	533
	South Elem.	K-6	7	103
	Park Elem.	K-6	12	165
Shack Huddle		K-7	1	42
Private Schools				
Hudsonville Christian Elem.		K-8		643
Hudsonville Unity Christian High		9-12		440
Jenison Christian- Elementary		K-4	10	366
	Junior High	5-8	10	258

1. Figure for 1960-61 school year.
2. Annexed to Hudsonville prior to 1960-61 school year.

This is a total of 112 classrooms, not including the Christian schools in Hudsonville. Assuming an average capacity of 25-30 pupils per room, an enrollment of 2800-3360 could be accomodated. If we consider only the public non-high school districts of the township, there is a total of 46 available classrooms which would accomodate 1150 to 1380 pupils. Projected 1960-61 enrollments for these districts is 1248 students, indicating that present facilities are nearing or at a capacity in most schools.

Projected enrollments through 1965, Table V, indicate that if recent growth trends continue, enrollments in the public non-high school districts of Georgetown Township will double again.

TABLE V

PROJECTED ENROLLMENTS*, 1960-65

Non-High School Districts of Georgetown Township

SCHOOL	1960-61	1961-62	1962-63	1963-64	1964-65
Bauer	188	195	202	209	217
Bursley	311	369	438	519	616
Georgetown Cons.	674	830	1023	1260	1552
Hanley	24	24	23	23	23
Shack Huddle	41	44	47	50	54
Totals	1238	1462	1733	2061	2462

* Projected on the assumption that rates of growth for the period 1955-60 will continue for the next five years. Obviously, if those factors which have caused the dynamic population growth of Georgetown Township in recent years do not continue, these figures will not materialize. But conversely if these factors should be accelerated, these figures would be somewhat low.

The implications of these projections for future building needs are obvious. Assuming the 25 to 30 children per classroom average, 36 to 52 new public non-high school classrooms will be required by 1965 if the projected enrollments are realized. It seems certain that the Christian schools will experience enrollment pressures of comparable proportions.

School Planning

The above remarks should not be construed to suggest that the school boards of either public or Christian schools in the township are unaware of the problems they face. The Christian schools are already planning the construction of a new elementary school near Baldwin and 20th. The Bursley and Georgetown Consolidated districts have been studying their mutual elementary and secondary problems together and individually for several years. It is hoped that their deliberations and those of the other school district boards of Georgetown Township will produce the immediate and long range planning which will provide the best organizational basis and school facilities possible. It should always be kept in mind, that the schools and the community both benefit from coordinated planning for the overall needs of the community.

A major problem facing boards of education in the township, now and in the future, is determining and acquiring sites for elementary school facilities. In an area such as this, where housing development is rapid, the need for new school facilities in a neighborhood can become acute almost overnight. Yet, because almost all of the new housing is being built by individuals or small developers rather than in large pre-planned sub-divisions, it is difficult to know in advance where the next area to become heavily populated will be. There is a need for careful consideration and selection of sites well in advance of actual need while land prices are still reasonable.

Among the criteria which should be considered in site selection are the following:

(1) Accessibility--The site should be within walking distance for the elementary children it will serve. Normally, this means that the school's service area should cover a radius of approximately one mile. It is understood, of course, that initially new schools in more sparsely settled sections of the township may have to transport some youngsters, but this problem should be alleviated as the area "fills in" and additional school facilities are built. Another important factor in accessibility is the location of present and projected major traffic arteries, it is undesirable for elementary children to have to cross busy streets and highways.

(2). Suitability--The topography and soil conditions of a site must be suitable for construction of a school, or at least such that they can be made suitable at reasonable cost. Equally important is the environment of the site in terms of its relationship to existing or projected traffic arteries, industry, etc. It is obviously unsuitable to place a school on a major street or highway for reasons of both safety and noise. Likewise in an area adjacent to industry, and certainly no one would want a fine new school over-looking the dump. Thus, consideration of zoning and possible future development is essential in site selection.

(3) Projected uses--The projected uses of an elementary school building should influence the nature and location of its site. If a school is viewed narrowly as simply a place to educate children for six or seven hours a day, nine or ten months of a year, then a comparatively minimal sort of building and site will suffice. If, however, a broader view is taken, and the school is seen as the center for the total educational, cultural, and recreational activities of its neighborhood, then provision must be made for the added functions this implies. Generally, a larger site is required. If there is good school-community cooperation in recreational planning, for example, the joint development of an enlarged school site as a school-park becomes feasible. The fundamental requirement is that the board of education arrive early at some conclusions about their concepts andphilosophy of education.

The High School Problem

A second major problem for the future is the provision of adequate secondary education for the children of the elementary districts of Georgetown Township. Much of what has been said above about elementary schools development can apply equally as well to future secondary schools. However, the additional question arises of what constitutes an adequate school district organization to support secondary education. This problem could be met by any one or a combination of several of the following methods:

(1) annexation of existing elementary districts to one or the other of the two high school districts (Hudsonville and Grandville) which presently serve them on a tuition basis.

(2) merger of two or more of the existing elementary districts, either by consolidation into an enlarged district or by the annexation of one or more districts to another, so as to form a high school district.

(3) continuation of present district organization in the hope that increasing population growth and valuation will eventually enable each district to support a high school program of its own.

It is not the purpose of this report to advocate one of these solutions over another, but we would remiss if we did not point out that there are certain minimal criteria involved in the formation of a high school which relate directly to the geographic area of a district, the size of its population, and its ability to provide quality education for its children. By any presently accepted standards some districts within the township will not experience sufficient growth to enable them to support a high school program in the foreseeable future. Thus, it would appear that the third alternative would not be an acceptable one in the smaller an more slowly developing districts of the township; and that these districts cannot expect to retain their individual identity indefinitely. From this it would appear that some school district reorganization in Georgetown Township is both desireable and necessary.

Summary

The schools of Georgetown Township, both public and private have kept abreast of very rapid growth in enrollments in recent years. Particularly heavy pressures have been placed on the Georgetown Consolidated and Bursley school districts which have nearly tripled and doubled respectively in enrollment during the last seven years.

However, indications are that if past population growth tends continue, school enrollments will double again in the next five years. Providing the needed new facilities—in addition to the expanding instruction and maintainence costs—will prove a tremendous challenge to both public and Christian schools in the immediate years ahead.

A second problem of impending significance is that of providing for the secondary education needs of the yough of the township. If either of the receiving districts—Grandville and Hudsonville—would be unable to continue providing high school facilities for the township youth on a tuition basis, this problem would become acute demanding immediate resolution. It seems certain that there will be adequate numbers of youth to justify a township high school program. The question of adequate financing to support such a program is much less definetly answered. Whatever the resolution reached, it will involve some type of school district reorganization planning for which can not long be delayed.

Future school district reorganizations should take into account the natural and social boundaries of each school-community. These reorganizations will affect the location of new school sites to some extent, but if future school district boundaries are carefully determined, the effects of reorganization should benefit rather than hinder wise land use patterns. It can not be too strongly stated that coordination of school planning with the total planning for the needs of the community will pay rich dividends in the future years.

APPENDIX

ALWARD SCHOOL DISTRICT

(Georgetown 58)

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960*
Under 1	26	20	27	27	21	35	
1	26	25	20	32	30	24	
2	21	29	19	22	29	31	
3	32	22	24	21	26	26	
4	12	32	21	32	21	22	
Total	113	128	111	134	127	138	
5	21	14	31	22	29	19	
6	14	21	14	31	25	28	
7	14	14	18	17	30	22	
8	16	12	15	22	19	33	
9	13	19	12	18	21	17	
10	16	15	18	13	18	20	
11	13	16	16	21	14	20	
12	18	13	16	13	20	14	
13	11	17	13	17	13	18	
14	17	11	20	16	18	13	
15	18	16	11	19	17	19	
16	7	17	16	13	16	17	
17	14	6	16	15	11	14	
18	18	11	5	17	16	9	
19	5	14	10	5	16	17	
Total	215	216	231	259	283	280	

* Annexed to Hudsonville School District

BAUER SCHOOL DISTRICT
(Georgetown 50)
Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960
Under 1	8	15	12	12	19	14	18
1	10	15	17	16	16	28	15
2	20	20	16	16	18	21	23
3	26	22	18	18	18	18	22
4	16	28	21	20	18	18	24
Total	80	100	84	82	89	99	102
5	25	17	26	27	19	21	19
6	21	29	16	30	27	21	24
7	21	23	29	18	29	30	23
8	18	23	21	32	17	32	27
9	22	18	25	22	29	19	32
10	23	24	20	28	26	33	20
11	25	19	24	21	28	25	30
12	17	25	19	26	20	27	24
13	23	17	25	16	25	21	29
14	15	24	18	26	19	24	30
15	11	15	21	18	25	18	23
16	19	13	15	22	16	24	19
17	22	17	11	14	20	16	22
18	10	23	18	13	15	18	15
19	11	5	21	15	13	12	17
Total	283	292	309	328	328	341	344

Source: Michigan Department of Public Instruction

BURSLEY SCHOOL DISTRICT

(Georgetown 54)

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960
Under 1	28	34	51	36	46	50	42
1	45	30	43	59	35	56	64
2	46	44	38	53	64	39	67
3	37	45	57	41	52	61	44
4	40	46	46	61	45	55	61
Total	196	199	235	250	242	261	278
5	32	41	49	49	59	42	57
6	23	34	45	49	49	58	48
7	26	27	38	52	48	46	58
8	15	16	27	34	47	46	46
9	21	16	32	29	36	45	48
10	17	22	19	33	30	35	47
11	18	16	21	21	32	27	37
12	16	16	18	21	22	32	27
13	13	14	17	18	23	24	32
14	11	12	16	17	21	24	26
15	16	12	13	19	16	21	24
16	9	16	14	13	19	16	22
17	8	8	14	13	15	18	17
18	10	7	6	18	14	18	22
19	7	7	7	5	16	10	18
Total	242	274	336	389	447	462	529

Source: Michigan Department of Public Instruction

HANLEY SCHOOL DISTRICT

(Georgetown 4)

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960
Under 1	3	4	1	1	5	5	3
1	4	2	5	3	0	3	6
2	4	3	4	6	5	1	3
3	4	4	3	5	7	4	2
4	4	3	6	1	6	6	6
Total	19	16	19	16	23	19	20
5	4	3	4	6	1	6	7
6	2	4	7	3	4	1	5
7	2	1	3	6	3	3	1
8	5	2	1	2	7	3	4
9	7	6	5	2	1	6	3
10	4	6	7	4	1	1	6
11	7	4	7	6	3	1	3
12	4	7	4	7	5	2	2
13	7	5	8	5	7	4	2
14	4	8	4	9	4	5	3
15	2	4	8	4	8	5	7
16	8	2	3	6	3	7	5
17	1	8	5	4	7	3	7
18	7	1	6	5	3	7	3
19	4	6	1	5	4	3	7
Total	68	67	73	74	61	57	65

Source: Michigan Department of Public Instruction

GEORGETOWN CONSOLIDATED SCHOOL DISTRICT

(Georgetown 30)

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960
Under 1	38	75	103	94	109	122	159
1	60	82	89	123	115	134	157
2	57	80	100	108	147	138	166
3	60	72	94	109	123	154	168
4	60	77	81	101	121	128	176
Total	275	386	467	535	615	676	826
5	62	78	90	90	120	128	158
6	51	62	85	98	101	125	141
7	69	59	66	90	107	113	138
8	29	77	70	77	96	106	120
9	39	31	79	72	81	106	113
10	34	41	39	87	73	85	112
11	49	34	39	40	99	81	99
12	34	51	35	42	42	102	90
13	30	37	50	41	43	44	104
14	28	36	40	52	44	49	44
15	32	29	38	44	62	47	54
16	28	33	30	39	46	62	47
17	19	29	32	30	42	49	62
18	19	24	25	31	30	44	51
19	27	18	20	24	28	30	43
	550	639	738	857	1014	1171	1376

Source: Michigan Department of Public Instruction

HUDSONVILLE SCHOOL DISTRICT

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960*
Under 1	63	71	97	88	102	100	128
1	72	69	82	116	95	97	155
2	59	77	78	86	112	97	144
3	81	66	85	83	93	109	133
4	67	81	72	84	86	91	155
Total	342	364	414	457	488	494	715
5	63	72	93	79	83	82	124
6	62	62	77	91	77	83	123
7	60	72	67	81	94	78	131
8	47	61	71	70	82	95	113
9	40	50	59	68	69	81	148
10	41	44	52	61	67	75	112
11	61	41	51	55	61	68	108
12	45	69	44	52	56	60	104
13	41	49	65	46	48	55	88
14	36	44	47	60	46	46	91
15	33	42	44	48	65	48	78
16	39	32	41	43	49	66	82
17	39	43	35	43	44	49	104
18	34	41	41	37	42	45	79
19	37	33	42	40	39	39	71
Total	678	755	829	874	922	970	1556

* Georgetown #58 (Alward); Blendon #2; and Blendon #3; annexed to Hudsonville during the period between the 1959 and 1960 school censuses. These three districts had total 5-19 census of 528 in 1959.

Source: Michigan Department of Public Instruction

SHACK HUDDLE SCHOOL DISTRICT

(Georgetown 8)

Children of Pre-School and School Age: 1954-1960

Age	1954	1955	1956	1957	1958	1959	1960
Under 1	7	9	6	10	5	8	7
1	8	6	9	9	10	5	7
2	8	9	8	11	6	10	9
3	13	10	8	10	11	5	11
4	7	14	12	8	8	8	7
Total	43	48	43	48	40	36	41
5	11	7	14	10	9	8	14
6	4	10	6	14	10	8	9
7	11	5	11	4	15	9	10
8	3	9	4	10	5	14	7
9	3	3	10	3	10	6	15
10	4	4	3	8	3	10	6
11	4	4	3	3	9	4	9
12	3	2	3	2	3	9	3
13	3	3	2	3	3	3	10
14	4	2	2	2	3	3	3
15	1	4	2	2	2	2	1
16	5	1	3	2	2	2	2
17	3	4	1	3	2	2	2
18	4	2	3	1	3	2	2
19	7	4	2	3	1	3	2
Total	70	64	69	70	80	85	95

Source: Michigan Department of Public Instruction

ALWARD SCHOOL DISTRICT

(Georgetown 58)

Total Public School Enrollment by

Individual Grades for the Years 1955-56 to 1959-60

YEAR	GRADES K	1	2	3	4	5	6	7	8	Total K-8
1955-56	7	10	9	10	9	7	10	8	6	76
1956-57	20	8	11	8	10	11	7	10	8	94
1957-58	11	23	8	10	10	13	11	7	12	105
1958-59	18	10	19	7	10	8	12	11	6	101

Annexed to Hudsonville

Source: State Department of Public Instruction

BAUER SCHOOL DISTRICT

(Georgetown 50)

Total Public School Enrollment by

Individual Grades for the Years 1957-58 to 1959-60

YEAR	GRADES K	1	2	3	4	5	6	7	8	Total K-8
1957-58	18	15	19	21	21	20	21	18	18	171
1958-59	20	20	14	20	21	21	20	22	18	176
1959-60	17	24	18	16	20	21	21	23	21	181

Source: State Department of Public Instruction

BURSLEY SCHOOL DISTRICT

(Georgetown 54)

Total Public School Enrollment by

Individual Grades for the Years 1953-53 to 1959-60

YEAR	GRADES K	1	2	3	4	5	6	7	8	Total K-8
1954-55	20	12	15	11	14	8	10	12	12	114
1955-56	16	24	13	18	11	13	7	11	13	126
1956-57	34	25	26	15	21	13	14	10	9	167
1957-58	33	40	23	27	16	21	12	12	11	195
1958-59	25	40	39	24	26	17	22	12	13	218
1959-60	32	47	21	35	39	26	23	15	24	262

Source: State Department of Public Instruction

GEORGETOWN CONSOLIDATED SCHOOL DISTRICT

(Georgetown 30)

Total Public School Enrollment by

Individual Grades for the Years 1953-54 to 1959-60

YEAR	GRADES K	1	2	3	4	5	6	7	8	Total K-8
1953-54	38	25	23	14	25	20	11	8	12	176
1954-55	31	38	26	25	17	21	19	12	6	195
1955-56	42	30	42	28	34	18	21	20	14	249
1956-57	40	47	33	42	32	26	17	23	26	288
1957-58	54	51	49	37	47	31	30	17	22	338
1958-59	74	68	62	55	44	47	40	36	19	445
1959-60	83	88	67	65	59	47	55	44	39	547

Source: State Department of Public Instruction

HANLEY SCHOOL DISTRICT

(Georgetown 4)

Total Public School Enrollment by
Individual Grades for the Year 1955-56 to 1959-60

	GRADES									
YEAR	K	1	2	3	4	5	6	7	8	Total K-6
1955-56	5	6	4	4	6	9	1			35
1956-57	4	4	6	2	3	5	9			33
1957-58	3	2	4	6	1	2	4			22
1958-59	7	3	2	4	6	1	2			25
1959-60	3	5	2	3	3	7	1			24

Source: State Department of Public Instruction

SHACK HUDDLE SCHOOL DISTRICT

(Georgetown 8)

Total Public School Enrollment by
Individual Grades for the Year 1955-56 to 1959-60

	GRADES									
YEAR	K	1	2	3	4	5	6	7	8	Total K-8
1955-56	6	7	5	3	3	3	2	1	2	32
1956-57	7	5	5	2	3	1	3	1	1	28
1957-58	4	8	5	5	2	4	1	3	2	34
1958-59	7	2	7	7	5	2	4	3	3	40
1959-60	4	7	3	7	7	4	2	4	-	38

Source: State Department of Public Instruction

JENISON CHRISTIAN SCHOOL*

Total School Enrollment by
Individual Grades for the Years 1950-51 to 1959-60

YEAR	GRADES K	1	2	3	4	5	6	7	8	Total K-8
1950-51	31	46	48	42	33	49	35	39	26	349
1951-52	46	37	51	52	44	31	53	35	38	387
1952-53	71	52	40	47	55	44	28	48	36	422
1953-54	58	76	56	39	50	55	45	29	46	454
1954-55	101	62	75	66	43	51	51	47	34	530
1955-56	103	105	63	76	65	42	50	55	42	601
1956-57	72	73	73	45	52	66	42	58	51	522
1957-58	75	70	75	68	50	56	72	36	60	562
1958-59	78	77	68	73	72	46	60	75	36	585
1959-60	70	78	81	64	73	74	52	58	74	624

* 1956-1957--Grandville Christian opened with K-4

UNITY CHRISTIAN HIGH

-HUDSONVILLE-

Total High School Enrollment by
Individual Grades for the Years 1953-54 to 1959-60

YEAR		GRADES 9	10	11	12	9-12 Total
1953-54	Township residents	38	33	28	13	112
	Total enrollment	63	83	63	25	234
1954-55	Township residents	41	41	26	27	135
	Total enrollment	66	86	73	59	284
1955-56	Township residents	44	42	36	26	148
	Total enrollment	83	88	73	70	314
1956-57	Township residents	47	43	37	33	160
	Total enrollment	98	106	80	63	347
1957-58	Township residents	34	42	22	26	124
	Total enrollment	104	130	94	74	402
1958-59	Township residents	22	33	31	21	107
	Total enrollment	102	129	115	86	432
1959-60	Township residents	16	36	28	28	108
	Total enrollment	65	142	117	115	439

GEORGETOWN TOWNSHIP ASSESSED VALUATION RATIO CHART

Year	Township	Consolidated School	Bursley School	Hudsonville School	Alward School	Bauer School
1955	5,303,816	1,719,597	664,264	1,842,044	470,130	607,781
		.324	.160	.350	.089	.137
1956	6,095,336	2,087,853	792,571	2,089,076	496,200	629,636
		.342	.113	.342	.081	.122
1957	6,996,511	2,548,803	985,871	2,271,251	545,300	645,286
		.364	.141	.325	.078	.092
1958	5,554,470 1,971,900	2,881,730	1,098, 285	2.307,150	574,230	664,975
		.383	.146	.306	.076	.089
1959	6,893,938 2,256,700	3,803,400	1,312,733	2,598,455	684,060	753,990
		.415	.143	.301	.074	.067
1960	7,932,927 2,366,500	4,445,347	1,491,955	2,760,100	788,505	813,520
		.431	.145	.268	.076	.080

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INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

GEORGETOWN TOWNSHIP PLANNING STUDY

"STREETS AND HIGHWAYS REPORT"

Report of
Facilities Study Committee
Field Report No. 111

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

COMMUNITY FACILITY STUDY COMMITTEE

GEORGETOWN TOWNSHIP DEVELOPMENT STUDY

Martin VanDuyn, Chairman
Mrs. Frank Hart, Secretary
Marinas Adams
Charles H. Anderson
Clarence Foster
Carlton E. Galer
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Glenn Nykirk
Harold Postema
Ray Spychal

Steering Committee Representatives
(Georgetown Township Planning Commission)

Alvin Huibregtse
John VanHouten

Institute for Community Development and Services
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Robert B. Hotaling
Urban Planning Specialist

Burton B. Brackney
Project Coordinator

GEORGETOWN TOWNSHIP

STREET AND HIGHWAY STUDY

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Street and Highway Study
Georgetown Township
Ottawa County, Michigan

INTRODUCTION

The purpose of streets and highways is obviously to make it possible for people to circulated among the various private land developments in the township. Streets and highways will be built as they are needed and consequantly a means of circulation by automobile or walking is guaranteed to the public.

While this report deals specifically with streets and highways as the providers or means of circulating among the land uses in the township, it should be very clearly pointed out that this is but a part of the total community planning and development effort. The broadest purpose of the Georgetown Township Development Study is to acquaint the citizens and tax payers in the township with the changing conditions of the times in relation to the development of the total community. In order to do this the Township Development Study group studied:

(1) Population Trends,
(2) The economy which supports the population,
(3) The present private and public uses of the land in the township and the required services to these land uses by streets and highways, utilities and facilities of a public, semi-public or private major,
(4) The present use of the natural resources available in the township,
(5) Guides for future planning for the development of the township in terms of future improvement and expansion,
(6) The relationship of Georgetown Township to the regional influences of the City of Grand Rapids and the Detroit--Chicago "Population--Industrial --Commercial Corridor". The point being that no community stands along or separate from the larger metropolitan or regional area.

In view of the above consideration the Township Development Study group, particularly through its sub-committees, studied in detail and discussed at length those important areas considered to be important to the total community. Consequently sub-committees were set up to study:

(1) The population,
(2) The economy supporting the population,
(3) Land use (residential, industrial, commercial, public and semi-public),
(4) Circulation (streets and highways),
(5) Utilities (sanitarian sewer, water supply, storm drainage, electric power, gas distribution and telephone communitation),
(6) Facilities (education, recreation, health police and fire protection).

Studies in these six major areas individually and collectively, it was concluded, would make a better basis for understanding the total problems, needs, opportunities and possibly desires of the people in the community to "build a better Georgetown Township" in the future than exist presently.

METHODOLOGY FOR ACCOMPLISHING THE STUDY

The Township Board, after agreeing to proceed with the development study with the help of the Institute for Community Development, delegated the responsibility for carrying out the study to the Township Planning Commission which functioned as the "Georgetown Township Development Group". This group acted as the Steering Committee for the total study. In turn, divided its membership into the previously mentioned six subcommittees with assignment responsibilities in the previously mentioned six areas of investigation.

The Study Group with the help of the Institute developed a working program. Subsequent to making the committee assignments discussions were held on the procedure for carrying out the work. Discussions were held concerning information necessary to the study, the need for it, where to get it, and how to use it. Data collected by the committees were recorded on survey forms. Each survey form was keyed to a section or parcel of land both for use in the field and latter for transferring the data onto a map of the township. Through this procedure a series of data maps were prepared showing the following:

(1) Soil Conditions
(2) Topographical Conditions
(3) Land Use
(4) Area of Parcels
(5) Location of Structures
(6) Types of Construction of Buildings
(7) Floor Area of Residential Structures
(8) Age of Structures
(9) Condition of Structures
(10) Township Valuation Patterns

From the above data maps and other information the Land Use Study Committee prepared the report entitled "Land Use Study for Georgetown Township, Ottawa County, Michigan", with the help of Robert B. Hotaling, Urban Planning Specialist, from the Institute for Community Development at Michigan State University. This Land Use Report was then used as a basis for determining the future street and highway needs throughout the Township. The procedure was to use the "Development Guide Plan" which was included in the Land Use Report, for the purpose of determining future traffic generation patterns. This future generation pattern was then analyzed in terms of trying to determine generally where people meaning to use the streets and highways would originate from and where they were going as their destination. This analysis gave the Study Group (sub-committee) a better idea of where and in what amount the future needs for handling potential automotive traffic would be located in the Township. This was then generally translated into the needs for varible types of streets and highways which could then more appropriately function in terms of handling existing and future increases in automotive traffic throughout the Township. The point being that through this planning and analysis of data procedure a realistic base for requiring different widths of rights-of-way and different standards of construction and therefore cost to the tax payers for public improvements could be made more precisely to the advantage of considerable savings to the tax payers and the developers in the Township. Thus the Study Committee was able to conclude their investigation of the need for streets and highways by preparing a map, included in this report, entitled "A Guide Plan for the Streets and Highways, Georgetown Township, Ottawa County, Michigan" and further establish "Recommended Minimum Design Standards for Streets and Highways, Georgetown Township, Ottawa County, Michigan".

FINDINGS OF THE STUDY GROUP

With the rapid expansion of urban types of development into Georgetown Township the resultant demands for increase automotive traffic service must be satisfied in the interest of the safety, health and general good community development to which the people in the community should espier. Assuming this latter to be a desired goal and in order to prevent therefore substandard development of streets and highways in the Township, it is necessary to develop a coordinated long-range plan for future streets and highways to the extent that, as far as we can see now, the existing and potential land uses can be adequately served with good access. The plan presented in this report provides the basis for a coordinated network of streets and highways to serve those land uses generally outlined on the map entitled "Generalized Development Guide Plan for Georgetown Township, Ottawa County, Michigan" included in the report entitled "Land Use Study".

Regional Influences

Georgetown Township is located on the southwest side of the Grand Rapids metropolitan area in Ottawa County, but immediately adjacent to Kent County, in which the City of Grand Rapids is located. The Township has approximately six miles of Grand River frontage passing along its northerly boundary. The present major regional axis to and through the Township is by means of Chicago Drive (M-21). This highway runs through the southerly portion of the Township in a southwesterly-northeasterly direction. This highway is soon to be supplemented by an interstate express highway to be completed within the next two or three years which will terminate temporarily where M-21 presently provides access in the east-central portion of the Township. In later programs this interstate express highway will more than likely continue on through the southeasterly portion of the Township and on through southwestern Michigan to a Chicago metropolitan area and beyond. This route will in affect place Georgetown Township on the main line of the most modern highway facility between the cities of Detroit and Chicago. It is anticipated that access interchanges from this express highway for Georgetown Township will be located in the east-central portion of the Township near Jenison and in the southwest portion of the Township in order to provide access to Hudsonville and 48th Street (the potential access road to Grand Valley College immediately north of Georgetown Township). These two expressway

interchanges will become the "core influencers" for future urban development in the Township. Connecting local roads to M-21 and the interstate express highway of the immediate future are located throughout the Township and give access to all portions of the Township. Thus the Township has an existing basic access pattern upon which to bill and improve in the future.

In passing it should be noted that the Pere Marquette Railroad parallels highway route M-21 through the Township. The combination of M-21, the new interstate express highway and the railroad points toward an industrial--commercial --high density urban type of development potential. The "Land Use Guide Plan" for the Township indicates this high density urban development corridor. It further recognizes that densities of urban development will gradually decrease as development continues further away from this corridor.

One new major influence in the northwesterly portion of the Township is that of the "Grand Valley College campus". The present estimates are that this college will have a student body of around 10,000 within the next ten years or so. The implication from this direction is that a relatively higher density of development might as a result of this college location be found in the northwestern section of the Township. Other than the industrial--commercial--high density urban development corridor (including the city of Hudsonville) and the Grand Valley College campus there appears to be one other potential high density attractor in the form of possible development along the Grand River frontage for recreation purposes.

It would appear, therefore, that from the regional point of view the major access to and from and through Georgetown Township will generally follow the M-21--interstate express highway route with access at the east-central portion of the Township near Jenison and the southwest portion of the Township near Hudsonville and 48th Street. High density development, it is anticipated, will also generally develop around and out from thest interchanges. Thus the basic implications for a future street and highway circulation plan for the Township seem to of necessity include serving the industrial-commercial--high density development corridor as being of major concern and connecting through routes to M-21 and the access interchanges of the interstate express highway to the Grand Valley College campus and the Grand River potential recreation areas. Minor functional street types would then connect to these through routes and access interchanges in

the form of handling higher capacities of traffic volume nearer the through routes and interchanges and grading out to less and less traffic volume capacities in the lower density areas of the Township.

Based upon this broad and very general assumption, and using the "Generalized Land Use Guide Plan" for the Township the following "Guide Plan for Streets and Highways", "Types of Streets and Highways" and Recommended Minimum Design Standards for Streets and Highways" for Georgetown Township were developed.

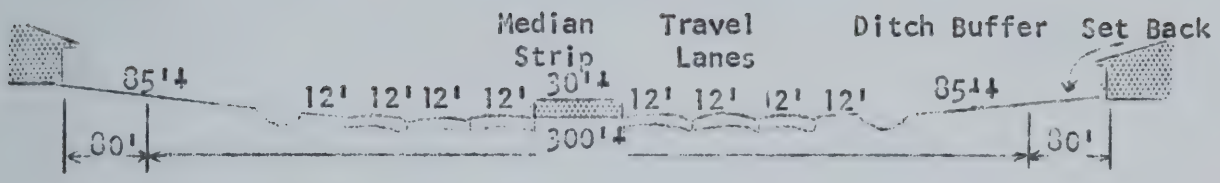
TYPES OF STREETS AND HIGHWAYS PLANNED

The following types of streets and highways were developed by the Study Committee and incorporated in the guide plan and standards included in this report:

(1) Interstate express highway
(2) Intercommunity arterials
(3) Community arterials
(4) Interneighborhood access street
(5) Neighborhood access street

1. Interstate Expressway

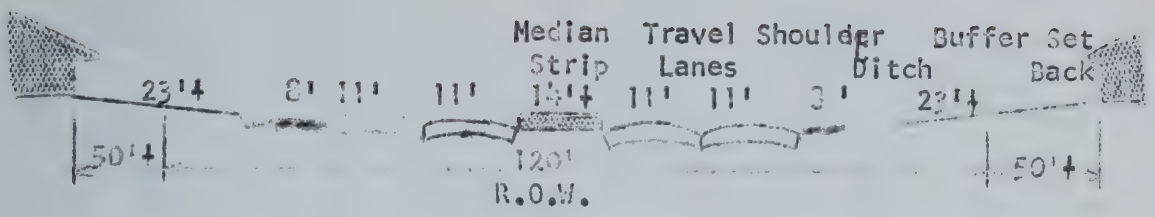
Designed for high volume, this type of high speed express highway has access only at designated intersections. There is no direct access to properties adjacent to the highway. Interchanges and intersections are grade separated, that is, the two crossing roads are completely separated from each other by having one pass over the other. Expressways can handle traffic volumes up to 20,000 to 30,000 car trips per day at speeds up to 70 m.p.h. Recommended minimum design standards call for 300 ft. wide rights-of-way, median strip divided, and space for at least four (or six) 12 ft. wide paved lanes for travel, gravel or black top shoulders on either side of the highway for emergency use, necessary drainage ditching and a buffer strip between the ditching and the adjacent properties. Buildings on properties adjacent to the highway are recommended to be not less than 80 ft. from the right-of-way line in order to provide for a safely setback and setting for developments abutting these highways.



TYPICAL CROSS SECTION OF AN EXPRESSWAY

2. Intercommunity Arterials

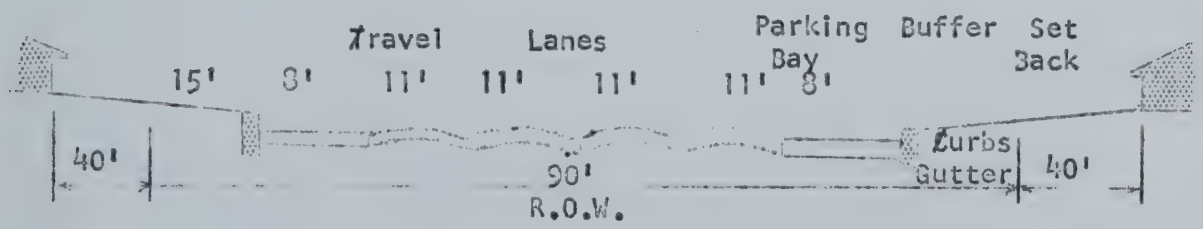
Designed for use between the communities adjacent to Charleston Township, these roads may handle traffic volumes ranging between 5,000 - 10,000 car trips per day at speeds up to 40-50 m.p.h. Recommended design standards provide for a 120 ft. right-of-way providing space for two to four paved travel lanes 11 ft. wide, divided by a median strip between opposing traffic lanes, gravelled shoulders or parking bays on both sides of the street, sidewalks, necessary drainage ditching and a buffer strip of land between the curb or ditching and the adjacent properties. Building setbacks along this type of highway are recommended to be not less than 50 ft. from the right-of-way line so as to provide space for possible local access streets, off-street parking, and setting for buildings to be constructed on these abutting properties.



TYPICAL CROSS SECTION FOR AN INTERCOMMUNITY ARTERIAL

3. Community Arterial

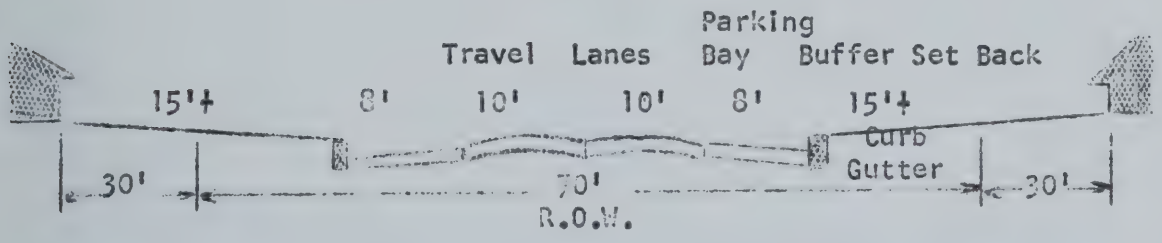
Designed for use within the township, these roads will handle traffic from one portion of the township to another, or to a more major or minor type of highway facility. It is estimated that these roads will handle traffic volumes ranging between 1,000 - 4,000 car trips per day at speeds up to 35-40 m.p.h. Recommended minimum design standards suggest at least a 90 ft. wide right-of-way providing space for two to four paved travel lanes 11 ft. wide, paved parking bays on both sides of the street, curb and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. Building setbacks along this type of highway are recommended to be not less than 40 ft. from the right-of-way line in order to provide a safe distance between the traffic, pedestrian and other activities along the edge of this type of street and to provide space for local access street or common driveway, parking and setting for the buildings on these abutting properties.



TYPICAL CROSS SECTION FOR A COMMUNITY ARTERIAL

4. Interneighborhood Access Streets

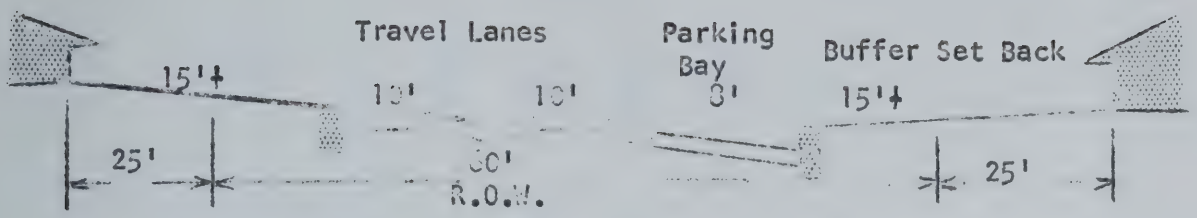
Designed primarily to move traffic between the residential areas and the other street systems, these streets will probably handle under 1,000 car trips per day at speeds up to 30 m.p.h. Recommended minimum design standards call for rights-of-way of at least 70 ft. providing space for two paved travel lanes 10 ft. wide, paved parking bays on both sides of the street, curb, and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. For safety purposes and setting for development on the properties adjacent to this type of street it is recommended that the setback be not less than 30 ft. from the right-of-way line.



TYPICAL CROSS SECTION FOR AN INTERNEIGHBORHOOD ACCESS STREET

5. Neighborhood Access Street

Designed to serve only the interior portions of residential areas and to provide access to residential property, these roads would carry no through traffic. The location of these streets will be determined as each area or parcel of land is developed. It is estimated that these streets will handle under 200 car trips per day at speeds under 15 m.p.h. Recommended minimum design standards call for rights-of-way of at least 60 ft. providing space for two paved travel lanes 10 ft. wide, a paved parking bay on one side of the street, curb and gutter, sidewalks, and a buffer strip between the curb and adjacent properties. Building setbacks along these streets are recommended to be not less than 25 ft. from the right-of-way line.



TYPICAL CROSS SECTION FOR A NEIGHBORHOOD ACCESS STREET

SUMMARY

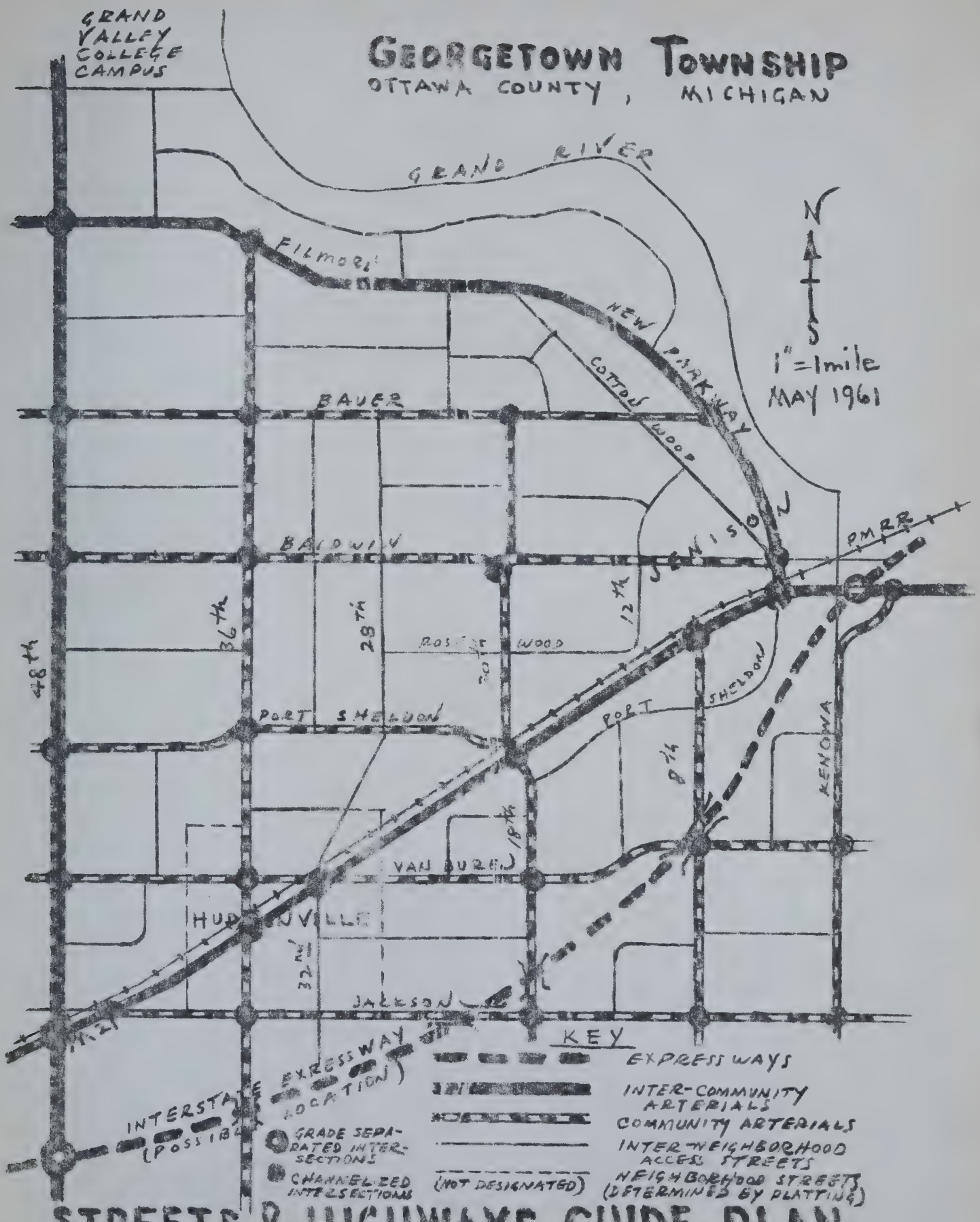
The "Guide Plan for Streets and Highways for Georgetown Township, Ottawa County, Michigan" integrates the street and highway network with the potential land use plan which the Study Group has concluded might well be the expected growth pattern for the Township. This street and highway guide plan also integrates the local circulation system in with that of the metropolitan area and regional systems. This plan, however, should always be considered to be a guide plan. The meaning back of this is to point out that the plan should be used as a guide for future development, but should be examined periodically on the basis of actual development and changes taking place in the Township in order to keep it up to date and current with contemporary land use patterns and the other elements that comprise the total elements of the Township.

RECOMMENDED MINIMUM DESIGN STANDARDS FOR STREETS AND HIGHWAYS

Type of Street or Highway	Right-of-Way Width	Estimated Ave. Range of Car Trips per Day	Max. Design Speed (m.p.h.)	Paved Travel Lanes	Travel Lane Width	Median Strip Width	Shoulders or Parking Bay Width SH or PB	Buffer Strip Width*	Set Backs from R.O.W.
Expressways	300'	20,000 - 30,000	65	4-6	12'	20'+	SH. 12'	30'+	80'
Inter-community arterial	120'	5,000 - 10,000	40-50	2-4	11'	14'+	SH. 8'	15'+	50'
Community arterial	90'	1,000 - 5,000	35-40	2-4	11'	x	PB. 8'	15'+	40'
Inter-neighborhood access streets	70'	Under 1,000	25	2	10'	x	PB. 8'	15'+	30'
Neighborhood access streets	60'	Under 200	15	2	10'	x	PB. 8'**	15'+	25'

* Including space for sidewalks

** One side of pavement only



STREETS & HIGHWAYS GUIDE PLAN

GEORGETOWN TOWNSHIP DEVELOPMENT STUDY GROUP

INSTITUTE FOR COMMUNITY DEVELOPMENT
MICHIGAN STATE UNIVERSITY

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GEORGETOWN TOWNSHIP PLANNING STUDY

Field Report # 112

Prepared for the
Community Facilities Committee

by

Burton Brackney, Community Development Specialist

CONTINUING EDUCATION SERVICE
MICHIGAN STATE UNIVERSITY

INSTITUTE FOR COMMUNITY DEVELOPMENT AND SERVICES

PUBLIC SAFETY SERVICES
IN GEORGETOWN TOWNSHIP

Report of the

Community Facilities Committee
Georgetown Township Planning Study

Community Facilities Committee

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Institute for Community Development & Services
Continuing Education Service
Michigan State University

May, 1961

PUBLIC SAFETY SERVICES
IN GEORGETOWN TOWNSHIP

POLICE PROTECTION SERVICES

Police protection services for Georgetown Township are provided primarily by two agencies:

1) The Michigan State Police through the Grand Haven and Rockford posts.
2) The Ottawa County Sheriff's Department, Grand Haven, B. Gryzens, Sheriff.

In addition, the Sheriff's Reserve unit, the Township Constable, and the County Civil Defense Director have duties related to or essentially of a police protection nature. The latter is appointed by Ottawa County Board of Supervisiors and is independent of the Sheriff's Department. The Federal Bureau of Investigation, the United States Secret Service, and other federal agencies participate, of course, in enforcement activities which require their involvement or assistance.

The work of the Sheriff's Department and the State Police tend to complement and supplement each other. Both provide radio dispatched patrol and security activity with primary responsibility in the county resting with the Sheriff's Department. The State Police also provide specialized police assistance—personnel and/or equipment—to the Sheriff's Department upon request.

The Sheriff's Department maintains road patrol for approximately twenty hours a day with "on call" service from 1:a.m. to 5:a.m.. This suggests a lower protection period which may or may not be augmented by additional State Police patrol work during these hours.

Generally, two deputies who reside in Georgetown Township divide their on-duty work hours between Georgetown and neighboring townships. Their presence tends to provide additional regular and emergency protection near at hand for the residents of the township.

The Sheriff's Reserve is a fully trained and uniformed organization which augments the regular force on special occasions. Sheriff's Reserve members are fully deputized and are responsible to the Sheriff when on duty. They provide additional patrol officers for heavy traffic events and offer assistance in emergency situations.

Township constables are elected by the people at the biennial spring elections. Their powers are limited to the enforcement of township ordinances unless deputized by the Sheriff. Constables have not played an important role in law enforcement in Michigan in recent years. Limited powers; compensation by fees only; and lack of police training have made the office almost extinct, although they do play a role in the execution of civil process for local justice courts in some areas.

The Situation

Georgetown Township's population increased by over 100 per cent between 1950 and 1960. This increase has been accompanied by increased property valuation, more street mileage, and heavier traffic volumes and congestion. All of these trends suggest the need for serious consideration of the adequacy of the police protection services provided to Georgetown Township.

On the one hand, the development of commercial and industrial valuations has not been in proportion to the growth of residential valuations. Thus, the need for property security patrol, although

greater now thab in 1950, has not grown in proportion to the population. The character of the residents of the township; the absence of taverns and other social-recreational establishments which require additional police activity; and the predominance of younger families with, as yet, fewer teenagers would also tend to reduce the demands for increased security patrol needs in relation to population growth.

On the other hand, the high proportion of the population of Georgetown Township which falls in the o-4, and 5-9 age groups poses problems not alone for the schools, but presents a serious safety problem as well. The major street system of the township, designed to provide rural farm to market access, is inadequate to properly handle the heavy traffic flows generated from densely built-up areas. Significant increases in street mileage and traffice volume; altered street use patterns; and growing congestion, such as have occured in Georgetown Township, are generally considered justification, per se, for increasing police regulatory and preventive patrol to reduce these hazards.

It should be noted that people in the township are concerned about these things. In the citizen census survey conducted as part of the overall township study, street lighting, street paving and maintenance, and sidewalks were, in order the three things for which area residents were most willing to pay additional taxes to realize improved conditions.

What are the Prospects?

The prospects are that population growth consistent with that which has occurred during the past decade will be experienced in this next decade. This suggests that the problems previously identified will become still more critical rather than diminishing, in the years immediately ahead. In addition; the expansion of commercial and industrial

valuations, in addition to growing residential properties, and the effects of the location of new area-wide facilities such as Grand Valley College and the freeway terminus at Jenison, all seem to point to a need for increased police protection services for the township in future years.

In light of the foregoing, what steps should be considered by the township to adequately provide for the safety of children, motorists, residents, and property? It would seem that certain positive physical steps are imperative while alternatives exist in providing additional police services as needed.

Physical steps-Provision of sidewalks and street lighting in built-up areas and improvement of major roads and the overall township circulation pattern. Careful school, recreation area, and community service location planning can prevent the creation of future safety hazards.

Police Protection- There are several alternative means of increasing police protection services in the township: (1) Request that the Sheriff's Department provide increased protection for the township consonant with population growth.

(2) Contract with the Sheriff's Department for the assignment of additional full-time deputies to the township; the costs to be reimbursed to the county by the township.

(3) Hire township police officers to enforce township traffic and health and welfare ordinances. Township police officers, unless deputized by the county sheriff, do not, however, have the powers of peace officers to enforce state laws except for breaches of the peace committed in their presence.

(4) Contract with, or join with, other governmental units--such as is often done in the case of fire protection-to provide for the enforcement of township ordinances.

(5) Give long-range consideration to the establishment of an integrated police-fire department. Public safety officers would serve in both capacities: firemen and policemen.

These alternatives offer considerable opportunity to meet the increasing police protection service needs of the township. In any case, providing greater public safety requires many approaches. School districts must consider safety factors in site selection. Increased use of school-crossing grards may be necessary in certain areas. Community-wide planning offers the best approach to minimizing the creation of new health and safety hazards.

Finally, it is the recommendation of this committee, that the Township Board study further the public safety needs of the township, and appoint, if deemed necessary, a citizens committee to explore in detail these areas which have been treated very generally in this report.

FIRE PROTECTION SERVICES

Statatory Bases:

Under Michigan law, townships may provide fire protection by special assessment districts, by purchasing the service from another governmental unit, or by the creation of a township fire department under Public Act 33 of 1951. Township Boards may establish a fire department without the approval of the electorate unless it is to be provided on a special assessment basis. To govern the fire department, Township Boards may establish a fire and/or police administrative board, but if such a board is not created the Township Board must assume the responsibility of controlling the department.

Charter townships must appoint a fire chief and provide necessary firemen to protect persons and property from the hazards of fire. Township Boards act as the administrative board of control of the fire department in charter township's.

Organization of the Georgetown Township Fire Department

The Georgetown Township fire department is a volunteer department organized under the township fire department act (P.A. 33 of 1951) above. The Township Board, acting as the town Fire Board, is the administrative body responsible for the department. The board excerises its control through part-time paid Fire Chief, and three district chiefs responsible to the Chief. The organizational structure of the department shown on the following page.

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Brackney, Burton

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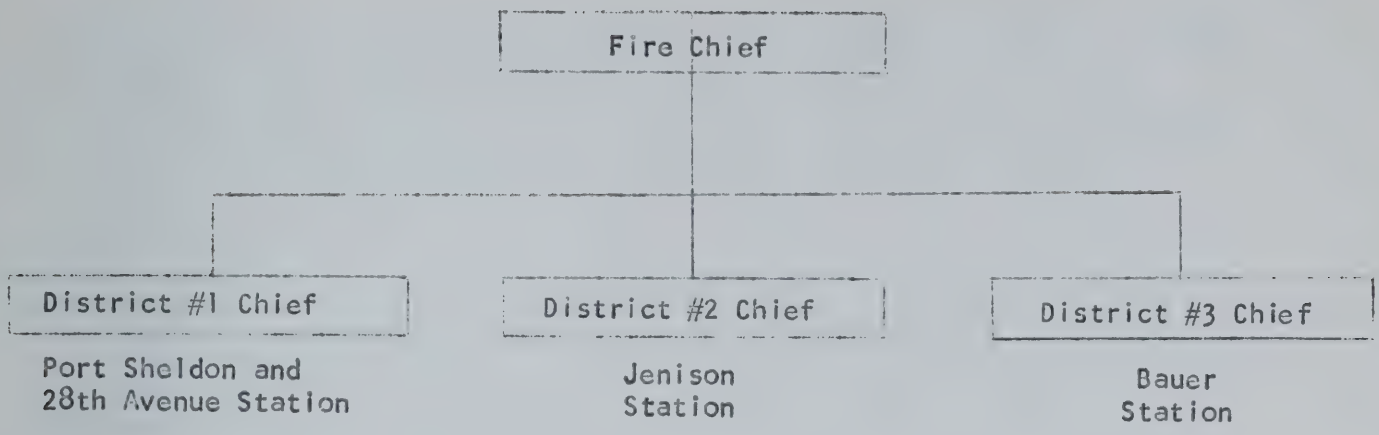

The township is divided into three fire districts for minor fires, while all equipment answers building fires.

District #1 Includes those areas of the township West of 20th on Baldwin and West of 14th on Port Sheldon.

District #2 Includes those areas of the township East of 20th on Baldwin and East of 14 th on Port Sheldon.

District #3 Covers the Northwest portion of Georgetown Township and West to 56th street in Blendon Township on a ten year contract basis. Georgetown Township owns the building and equipment housed at the Bauer station and Blendon Township furnishes the heat, lights, telephone service, and pays the firemen.

Districts number 1 and 2 are budgeted $1200 per year each by the Georgetown Township Board. District number 3 expenses are included in the contract with Blendon Township. Georgetown Township also has reciprocal aid agreements with all neighboring departments, some of which have the same monitor frequency.

Fire Department Personnel

The township fire department is a volunteer department with 12 men at each of the three stations. The township fire chief receives

a small annual salary for his services but all other members are paid only for fire-calls to which they respond. The average number of members answering each fire call is eight men. Two trucks answer all fire calls and all equipment and men respond to building fires.

Fire call alarms are sounded through monitors at each firemen's residence and businesses and by sirens at all three fire stations. Equipment is dispatched by the Grand Rapids Fire Department dispatcher on a contractural arrangement between the township and the city.

The department carries on active training program for its members. Eighteen to twenty training meetings and drills are held each year, not over three of which can be missed by a fireman without serious reason. Several of its members have participated in the University of Michigan extension programs in basic and specialized fire fighting techniques. Expenses for training and other activities are met by an annual station appropriation from the Township Board.

Fire Fighting Equipment

Georgetown Township has three pumpers, two tankers, and a chief's car. All three pumpers and the automobile are radio equipped. All units also carry first-aid equipment and supplies.

The motorized units include:

1946 pumper	500 gallons per minute	500 gallon tank
1952 tanker		1100 gallon tank
1955 pumper	500 gallons per minute	600 gallon tank
1960 pumper	750 gallons per minute	500 gallon tank
1961 tanker		1000 gallon tank
1949 automobile		

These are distributed as follows:

Station #1 (Port Sheldon & 28th)	1 tanker
	1 pumper
Station #2 (Jenison)	1 tanker
	1 pumper
	1 Chief's car
Station #3 (Bauer)	1 pumper

Other equipment includes a smoke ejector, two portable light plants, salvage covers, oxygen masks and other standard fire fighting gear.

Fire Insurance Rating

The Michigan Inspection Bureau makes fire ratings for all areas in the state of Michigan. Their ratings are adhered to by most of the fire insurance policy writing companies which do business in Michigan. Their primary rating criteria are:

(1) Adequacy of water supply.
(2) Size and professional character of the fire department.
(3) Distance from the fire station.

On September 23, 1960, the Michigan Inspection Bureau extended the special fire district in Georgetown Township. New rates for much of the Township became effective as of that date.

The classified area now consists of the entire township. Property in this township eligible to coverage at Michigan Dwelling Schedule rates may be graded as having Ninth Class Fire Protection. Rates as published by this Bureau for mercantile or industrial risks contemplate their individual fire protection gradings. The application of reduced rates due to this change in classification is subject to the provisions of Rules 5, 5a and 5b, pages 93 and 94 of the Michigan Rule Book. For credit to farm property within the classified area refer to Notes 5 and 6 on page 36 of the Michigan Farm Schedule.

Major local public actions will be required to bring about any further improvement of the fire protection rating for Georgetown Township. The first step would necessarily be the development of an adequate public water s pply with hydrant coverage of the built-up areas of the township. This could bring about imporved ratings—better protection and lower insurance costs—for those areas (probably special assessment districts) having public water supply. The next major rating change would be possible only upon the establishment of a full-time or at least partially full-time fire department.

The need for the development of a public water supply in the near future has been spelled out in the Utilities Report. The fire protection needs of the township add another argument to the health and economic development reasons already cited. Consideration of the establishment of a full-time, or at least a partially full-time department supplemented by volunteers, would depend upon the rate of local development. At that time, the community should give due study to the possibility of establishing an integrated police-fire department of public safety.

Summary and Recommendations

Georgetown Township enjoys a satisfactory level of fire protection provided by volunteer fire fighters. The buildings and equipment are up-to-date and well distributed. However, fire protection facilities must grow to keep abreast of rapid population growth. Certain adjustments in organization and additional men and equipment may be desireable in the not too distant future. When a public water supply is developed, a complete re-examination of the entire problem will be required.

On the assumption that further population growth and increasing density of dwellings can be anticipated; and that the people of the township desire to increase their fire protection capabilities consonant

with growth, it is recommended that serious consideration be given to the following:

1. The development of a public water supply. An adequate hydrant system will greatly improve fire protection and make possible improved fire ratings, hence lower insurance rates.

2. The need for a new fire district and station South of the railroad tracks and highway M-21 if this area continues to grow as rapidly as it has in recent years. Special access difficulties to this area seem likely to be introduced with the construction of the new expressway terminus and resulting re-routing of some access routes.

3. The establishment of a full-time fire department or at least a partially full-time department augmented by volunteers if and when population growth and the availability of public water supply makes such a course of action feasible. In the meantime, a larger number of volunteers at each station may be desireable.

4. Continious review of the equipment needs of the department. The desireability of a station wagon-ambulance and a training tower have been suggested locally. If an additional station is established south of M-21, a new pumper and tanker would probably be required.

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